2022MONJAGO Body Repair Process Manual

The Manual provides information on MONJAGO body repair process

Information updated to2022 2

Contents

1.1 Warning

1.1.1 Warning

1.1.1.1 Warnings

Repairing a vehicle is a professional and dangerous job. Failure to receive professional training for maintenance will increase the risk of injury, property damage and inability to properly perform maintenance operations. The maintenance procedures recommended in this workshop manual are formulated by professional technicians from Geely Auto. This manual is very helpful for technicians who have not been trained by Geely, and for technicians who have received our maintenance training and those who are experienced, it can reduce the risk in maintenance operations. However, all users of this manual should master the most basic safety protection measures.

The "Warnings" and "Cautions" contained in this manual will remind technicians with general experience of some infrequent dangers. These "Warnings" and "Cautions" must be strictly observed during the maintenance of the vehicle so as to reduce personal injuries and prevent damage to the vehicle due to irregular operations in the maintenance and repair process, or avoid the hidden dangers in the vehicle after maintenance. These "Warnings" and "Attentions" are not superfluous, on the contrary they are very important prompt messages. This manual does not give all the ‘‘warning and attention’’ information on the dangerous consequences caused by failure to follow the maintenance procedures.

The procedures recommended and described in this manual are very effective for maintenance and repair. Some of the repair tools are specially designed for special repair procedures. Maintenance personnel must ensure safety of themselves and the vehicle while using maintenance procedures and special maintenance tools recommended by agencies other than Geely Automotive Co., Ltd. during maintenance.

The new parts for replacement must be original Geely parts or parts that match the quality of the original Geely parts.

Geely Automotive Co., Ltd. is not responsible for any problem that may be caused by failure to follow this manual. The reasons for these problems include lack of maintenance-related training, the use of incorrect tools, the use of parts with lower quality than original Geely parts, and other reasons.

2.1 Content

2.1.1 Content

2.1.1.1 Content

The content of this manual provide assistance for KX11 vehicle body repairmen and guide them to perform body repairs correctly.

In order to repair and maintain the vehicle correctly, it is very important to completely master the contents of this manual. This manual should always be kept within reach for quick and easy reference.

Since the modification of this manual will affect the repair and maintenance of the vehicle body, relevant information supplementing this version can be obtained from Geely dealers. This manual should be kept up to date.

3.1 Overview

3.1.1 Vehicle Identification Number (VIN)

3.1.1.1 Vehicle Identification Number (VIN)

LB3 7 8 5 2 Z 8 L S 000576

Position 1: World Manufacturer Identification Number

LB3=Zhejiang Geely Automobile Co., Ltd.

Position 2: Vehicle Class Code

7=Passenger car

Position 3: Vehicle main parameter code

8=The length of the vehicle is greater than 4.6-4.8m

Position 4: Engine Type

5=Displacement 1.9-2.1L, front gasoline engine

Position 5: Body Type

2=2 compartments with 5 doors

Position 6: Drive Type

Z = Front, automatic transmission

Position 7: Check Numbers

8=VIN check code

Position 8: Year Code

L=2020

Position 9: Manufacturer Code

S=Zhejiang Haoqing Automobile Manufacturing Co., Ltd. Xi'an Branch

Position 10: Factory serial number

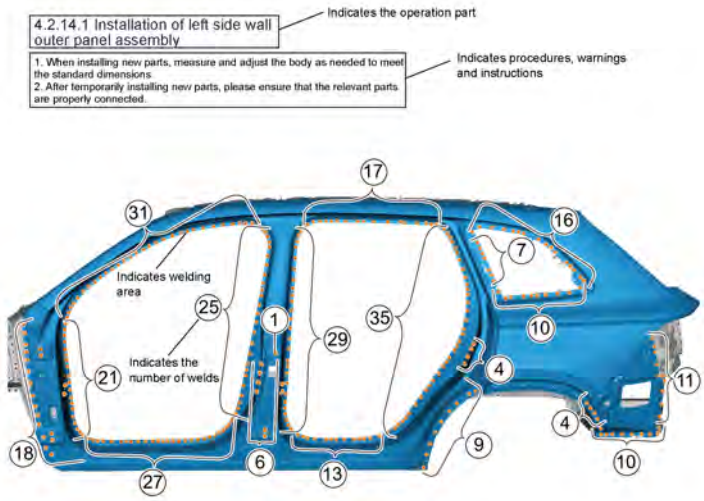
000576=Production serial number

3.1.2 How to use this manual

3.1.2.1 Quick replacement of body panel

- The content of this section is the data on the body panel, which includes the weld types, the number of welding spots, and the junction positions required for the removal and installation of the sheet metals.
- The welding types and positions are indicated by symbols.
- Some symbols are accompanied by instructions related to performing the operations. Before performing any procedure, read and understand these instructions in detail.

Illustration



3.1.2.2 Symbol of panel part replacement

Symbol	Meaning
	Spot welding (Double-layer welding)
	Spot welding (Three-layer welding)
	CO_2 arc welding

3.1.3 Maintenance Precautions

3.1.3.1 Workshop arrangement

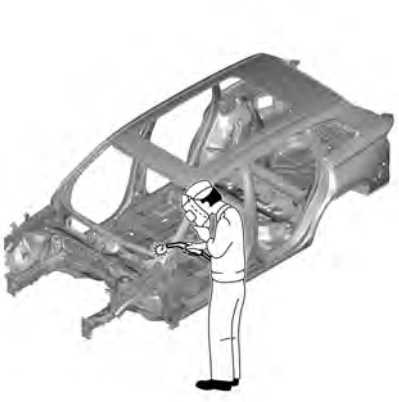
- The reasonable arrangement of the workshop helps to improve production safety and work efficiency.

3.1.3.2 Safety precautions

1. Safety helmets and safety shoes must be worn. Gloves, safety glasses, ear protectors, face shields, etc. shall be used according to the nature of the job.

2. Maintenance personnel must wear insulating protective equipment before operating live parts: insulating rubber shoes, insulating gloves and insulating helmets.
3. Before use, check the insulating protective equipment to ensure that they are free of damage, holes and cracks, and the inner and outer surfaces are clean and dry. In order to ensure safety, do not operate them with water.

3.1.3.3 Vehicle protection



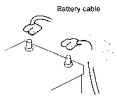
1. Use seat covers and floor mats.
2. Use a heat-insulating protective cover to protect the glass and the seat and prevent heat and sparks from the welding process.
3. Pay attention to the protection of moldings, trimming items and decorations during welding.
4. Before welding, clean the paint on the welded parts and remove the surface impurities with compressed air to expose the sheet metal.

3.1.3.4 Use of towing equipment

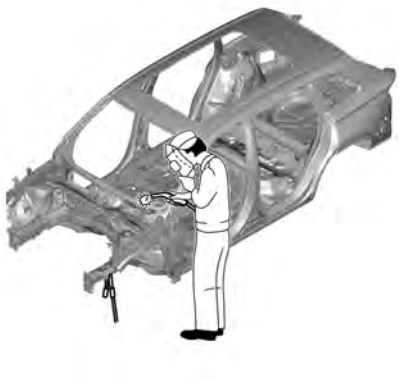
- When using towing equipment, stay away from the towing area and use safety wires to prevent accidents.

3.1.3.5 Short circuit prevention

1. Operate the start and stop button to place the power supply in mode "OFF".
2. Disconnect the positive and negative cables of the battery.



3. Connect the ground wire of the welding machine firmly near the welding position.
4. Please connect the ground wire to the body nut of the welded attachment. The nut must be free of paint and larger than M6.



3.1.4 Quick removal of body panels

3.1.4.1 Body measurement

- Before repairing the body panel, measure the damaged parts and their surroundings in accordance with the standard reference size specifications. If there is deformation, perform preliminary correction with frame repair equipment .

3.1.4.2 Body deformation prevention

- Use clamps or a jack for the removal, and support at and around the parts that need to be replaced, so as to prevent deformation of the body.

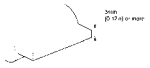
3.1.4.3 Removal of related parts

- While dismantling related parts, use tape to protect the moldings, trimming items and decorations.

3.1.5 Installation preparation

3.1.5.1 Determination of welding method

- If the total thickness of the weld area is 3 mm (0.12 in) or more, use a CO_2 gas shielded arc welding machine for the plug welding.



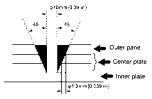
3.1.5.2 Drilling holes for plug welding

1. For positions where plug welding is performed, a punching machine or drilling machine is used to make holes for CO_2 arc welding.

2. Sand the shaded area as shown in the left picture, and punch a hole where 3-4 plates are joined together. At the same time, weld the plates tightly together and avoid gaps.

Caution

Before drilling holes for plug welding, sand to remove the paint on the surface of the vehicle body. After the plug welding is completed, sand the weld area.

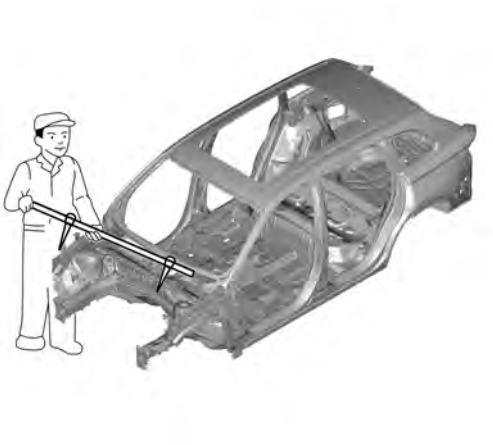


3.1.5.3 Spraying penetration weld primer

- In order to perform anti-corrosion treatment, remove paint, grease and other substances from the new parts to be welded and the vehicle body, and then spray penetration weld primer.

3.1.6 Quick installation of body panels

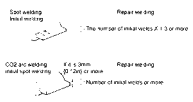
3.1.6.1 Checking pre-welding size and observing



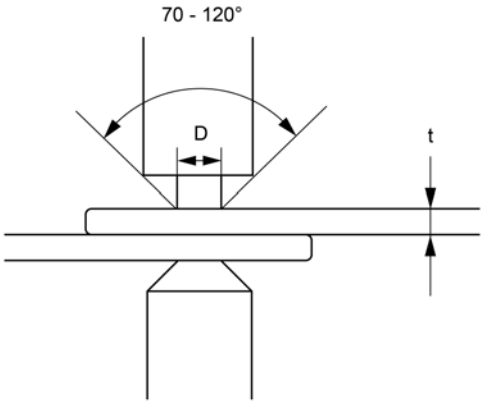
- According to the body size diagram, align the standard reference dimensions so that the new parts are installed in the correct positions.

3.1.6.2 Cautions for welding

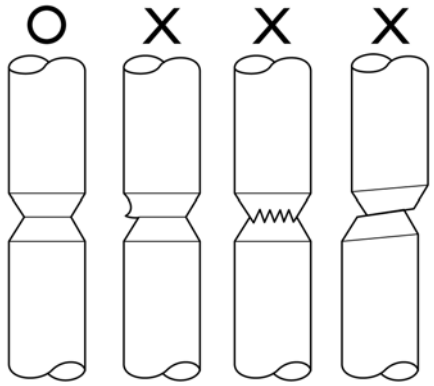
- Regarding the number of welding spots, the welding spots must be selected according to the following reference standards.



3.1.6.3 Cautions for spot welding



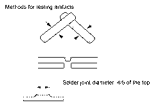
1. The size of the welding spot diameter is D = (2×t)+3; if the thickness of the upper plate is different from that of the lower plate, adjust according to the thinner plate.



2. As the weld strength is affected by the shape of the spot welding tip, the optimum condition for the tip must be maintained.

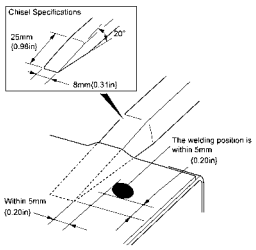
3. Spot welding should be performed at a point other than the original welding point.

4. Before spot welding, use a welding piece of the same material and thickness as the body panel for test welding to check the weld strength.



3.1.6.4 Checking weld strength

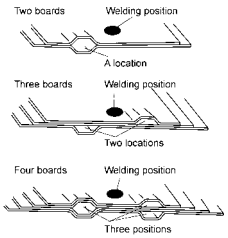
1. The installation positions of the engine, chassis and seat belts are important safety positions to ensure the weld strength. Wedge a chisel between the plates at every four or five welding spots and the tenth regular welding position to check the weld strength.



2. According to the number of plates, the chisel is wedged between the plates.

3. Restore the shape of the inspected area.

4. To determine the weld strength, wedge the chisel between the plates and check whether the plates will separate. If the plates separate, re-weld near the original welding seam.



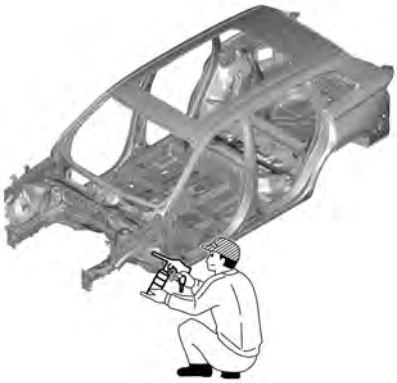
3.1.7 Anti-corrosion, acoustic and shockproof

3.1.7.1 Body sealing

1. Apply body sealant where necessary.
2. If it is difficult to apply body sealant after installation, brush it before installation.

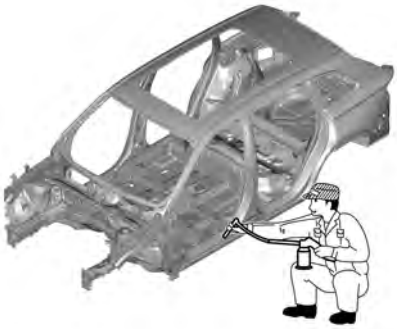
3.1.7.2 Applying primer

- Apply the primer to the body where it is needed.

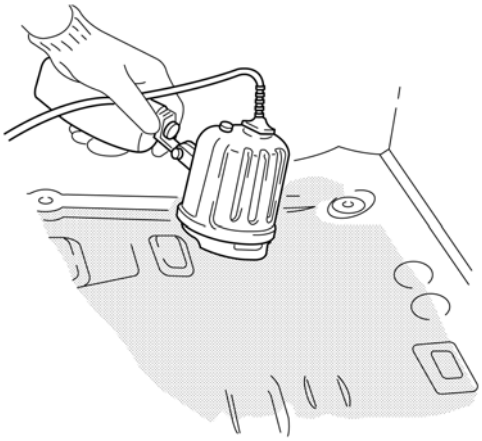


3.1.7.3 Applying rust inhibitor

- Apply rust inhibitor (wax, oil, etc.) to the back of the weld area.



3.1.7.4 Laying sound-proof materials for body panel

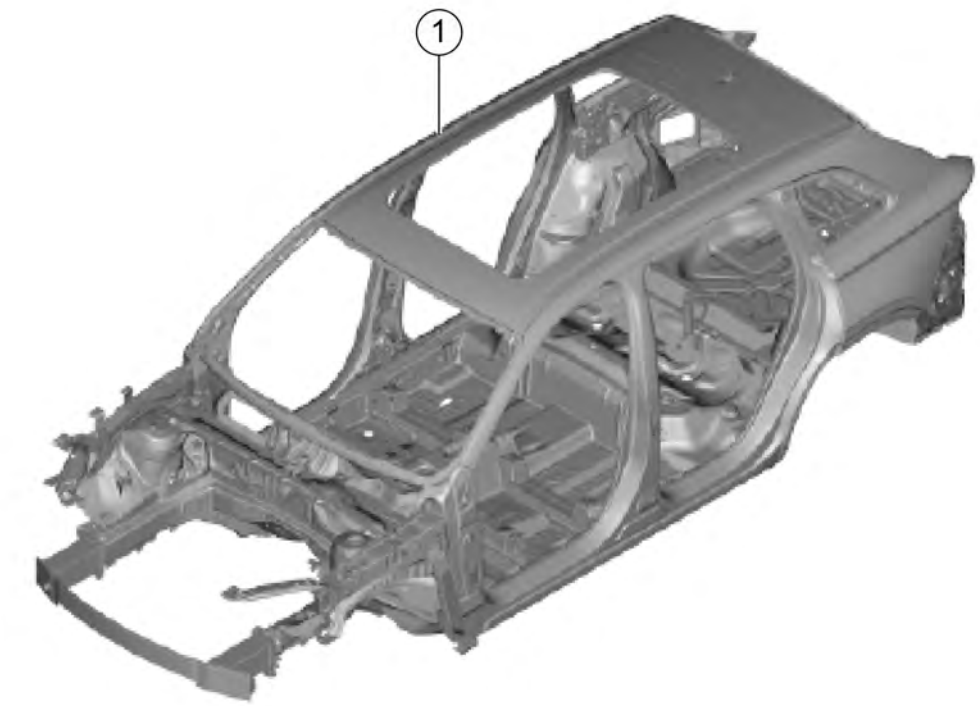


- Lay sound-proof materials for the floor by heating with infrared lamps.

4.1 Body Structure (Structure)

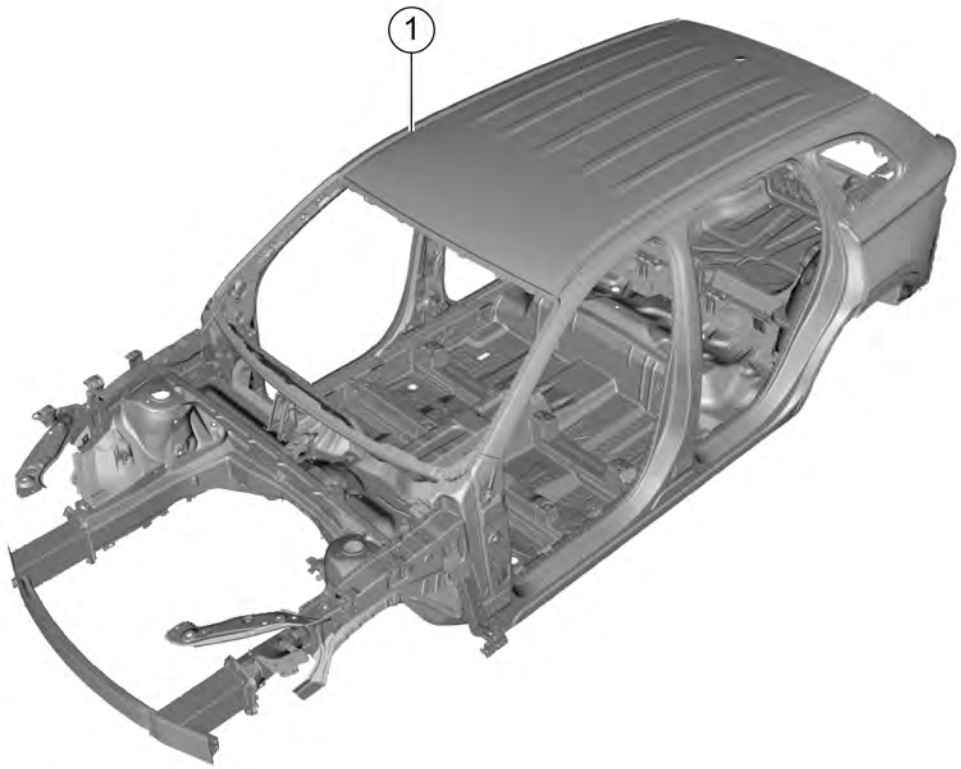
4.1.1 Construction of body parts

4.1.1.1 Body body assembly (panoramic sunroof)



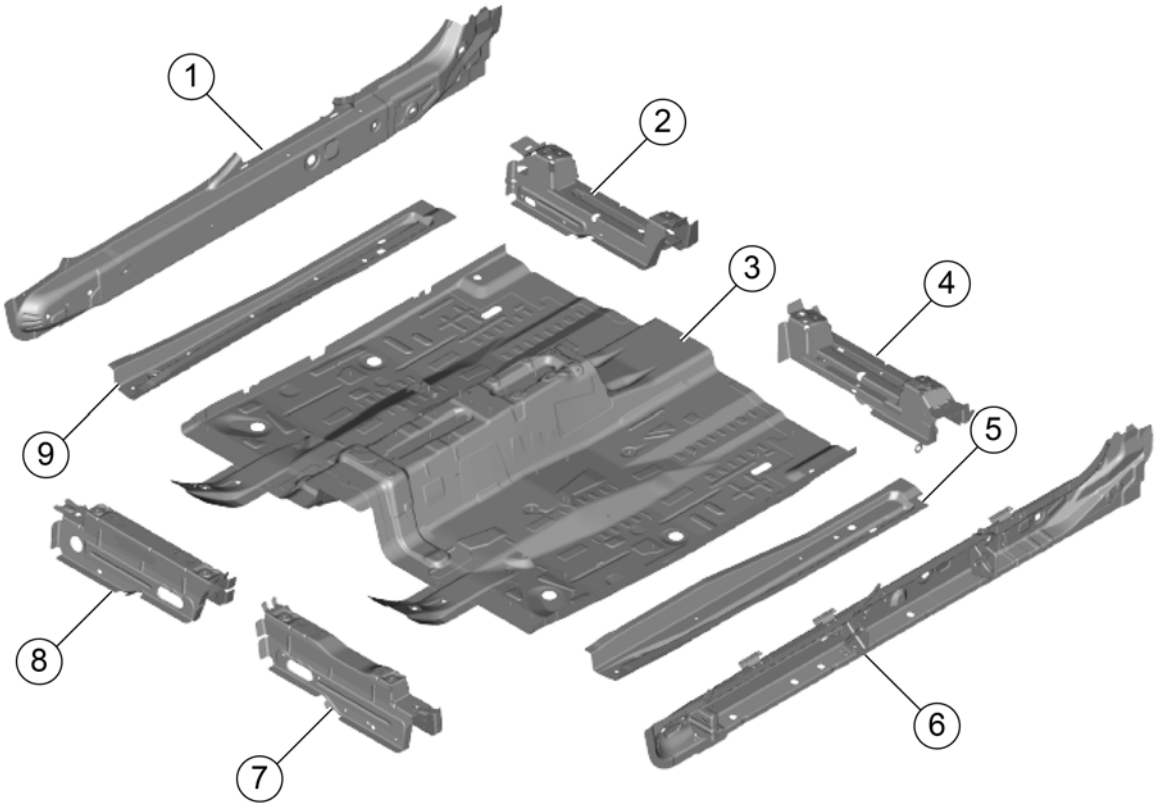
1. Body body assembly (panoramic sunroof)

4.1.1.2 Body body assembly (without sunroof)



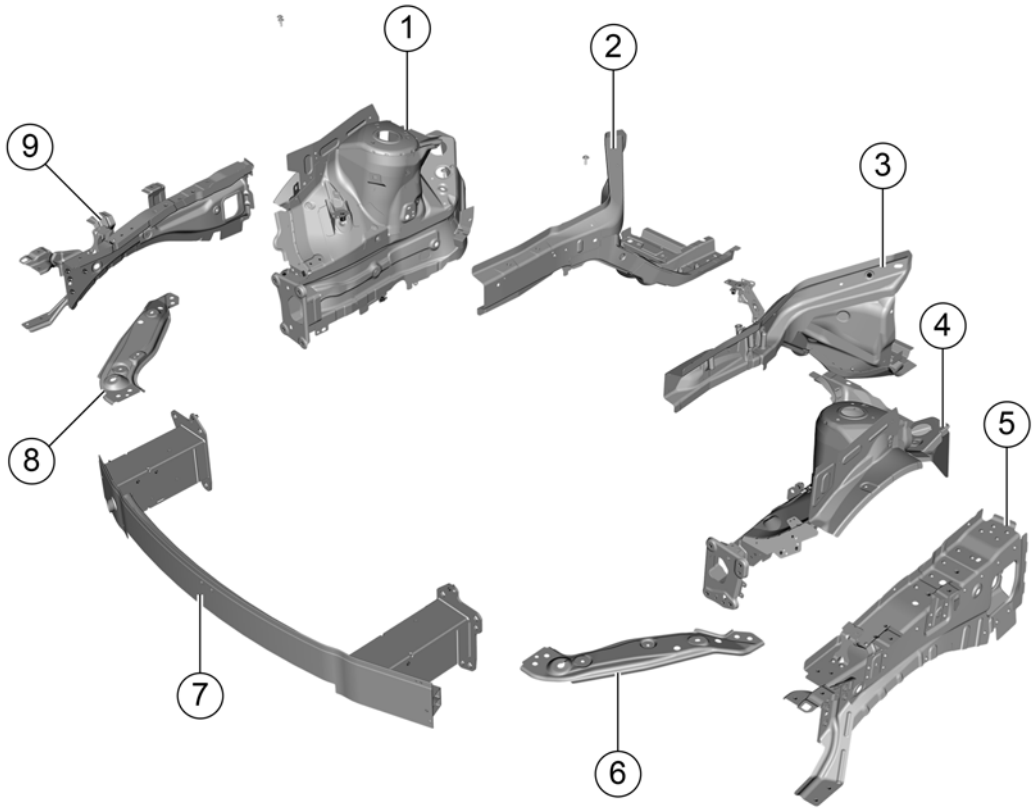
1. Body body assembly (without sunroof)

4.1.1.3 Front floor



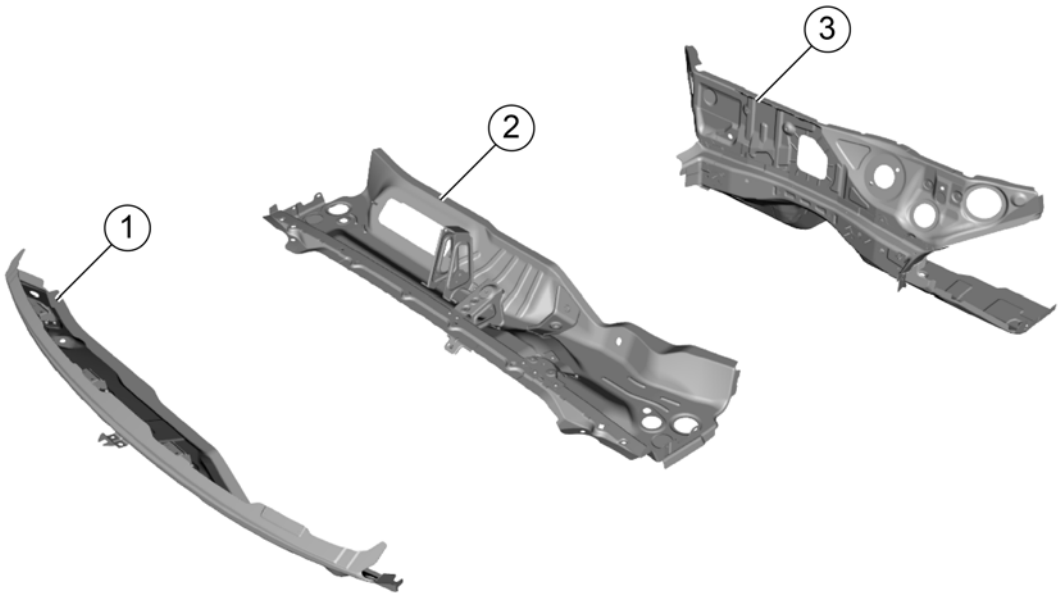
1. Right door sill inner plate assembly
2. Rear installation cross member assembly of FR seat
3. Front floor assembly
4. Rear installation cross member assembly of FL seat
5. Front floor left side member assembly
6. Left door sill inner plate assembly
7. Front installation cross member assembly of FL seat
8. Front installation cross member assembly of FR seat
9. Front floor right side member assembly

4.1.1.4 Front engine compartment



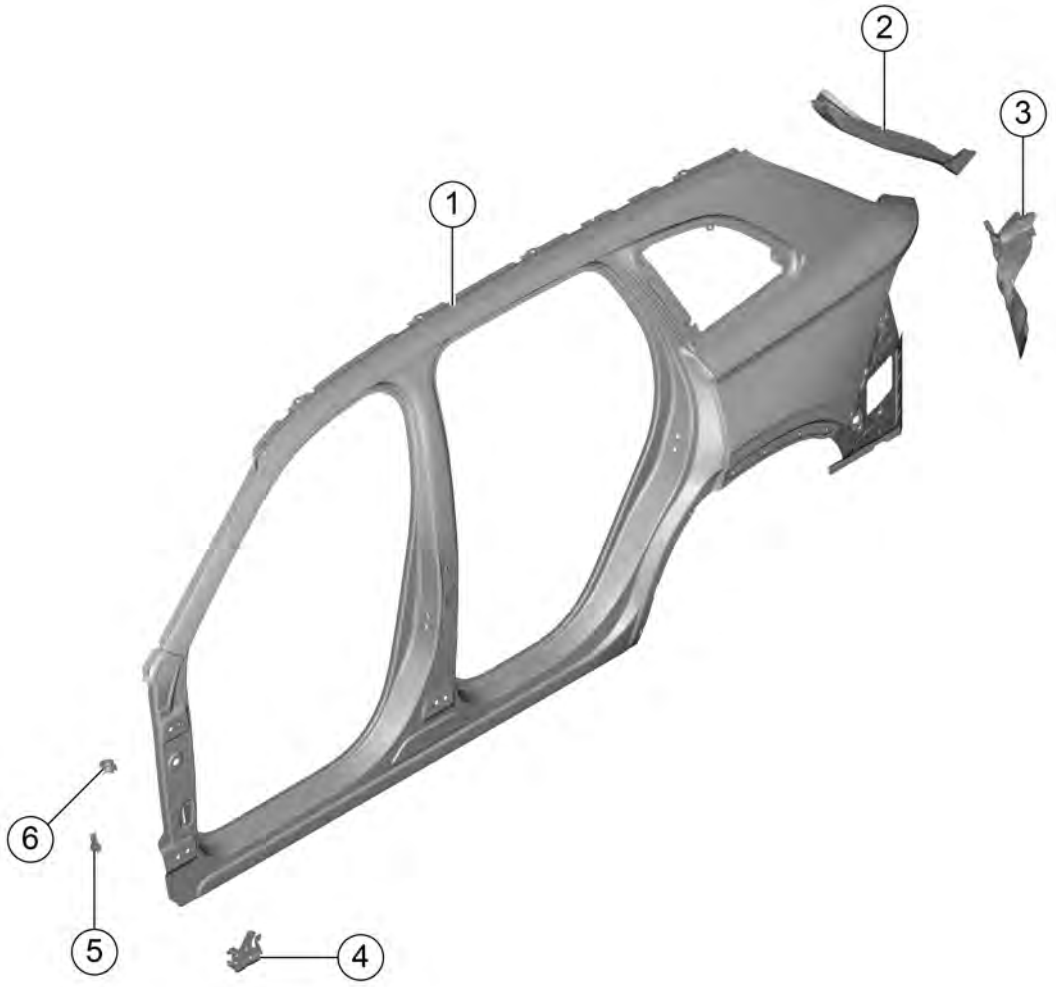
1. Right front wheel housing assembly
2. Front right side member assembly
3. Left front side member assembly
4. Left front wheel housing assembly
5. Front connecting plate assembly of left side wall
6. Left headlamp cross beam
7. Front anti-intrusion beam assembly
8. Right headlamp crossmember assembly
9. Front connecting plate assembly of right side wall

4.1.1.5 Front wall assembly



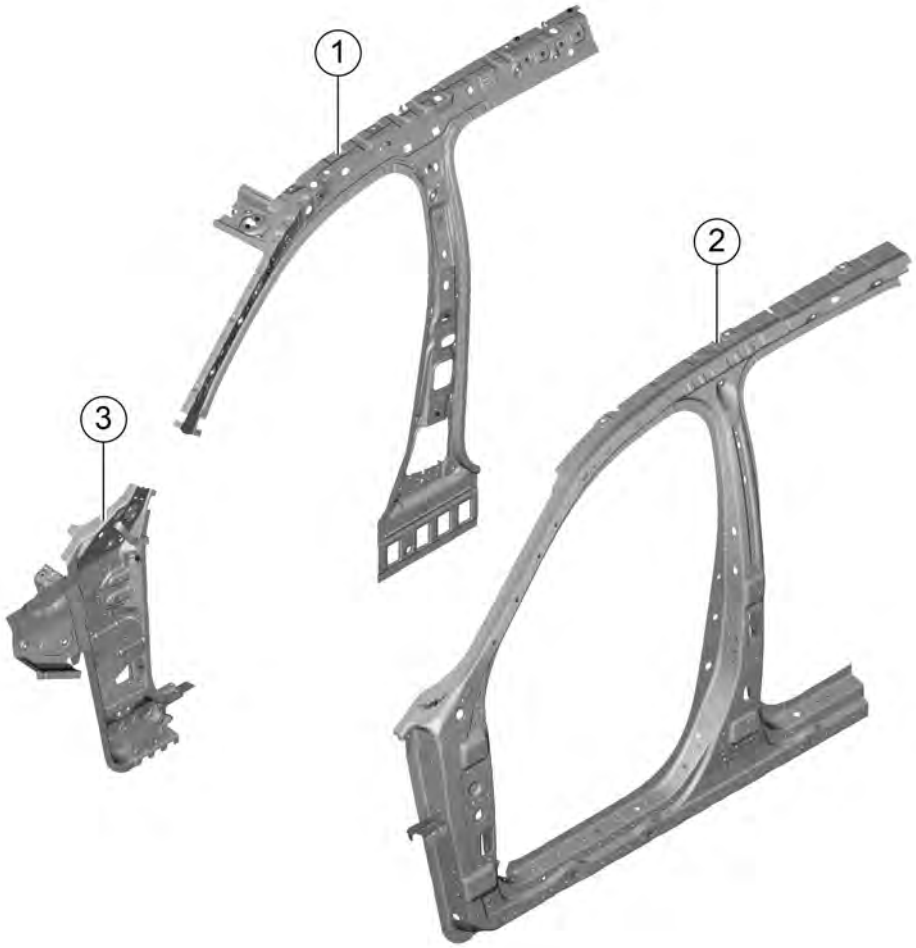
1. Upper section panel assembly front wall
2. Front wall upper assembly
3. Lower main board assembly of front wall

4.1.1.6 Side wall



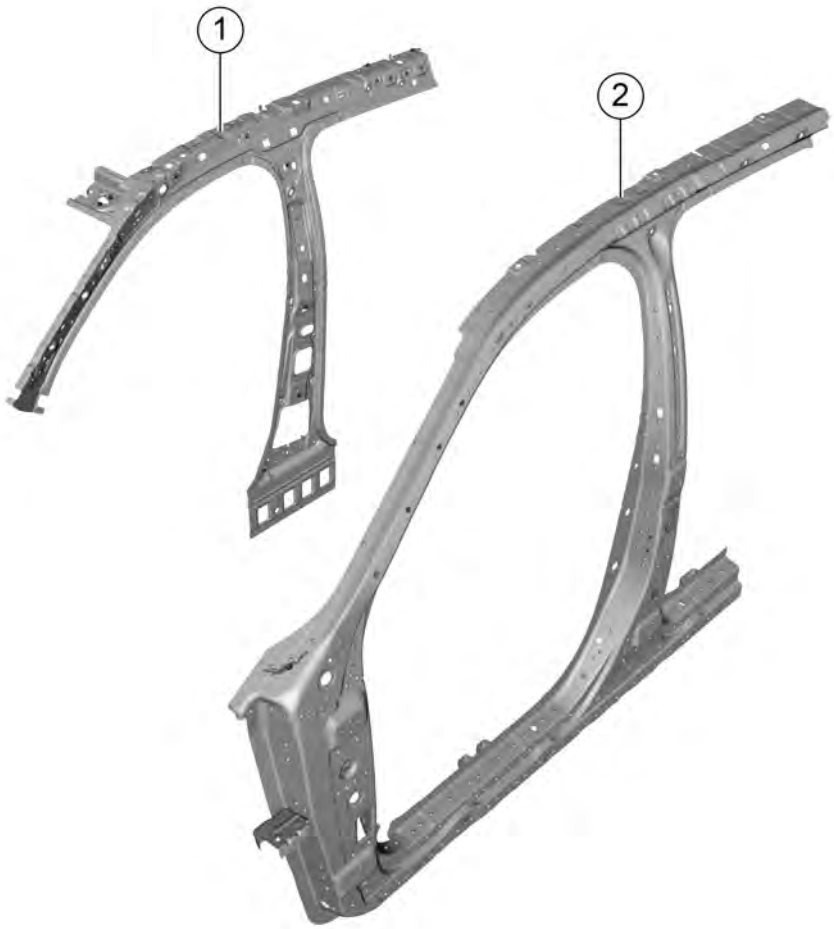
1. Left side wall outer panel
2. Rear drip rail upper panel assembly for left side wall
3. Left taillight mounting plate assembly
4. Left fender rear lower mounting bracket assembly
5. Fender rear middle mounting bracket assembly
6. Upper mounting bracket rear fender assembly

4.1.1.7 Front pillars



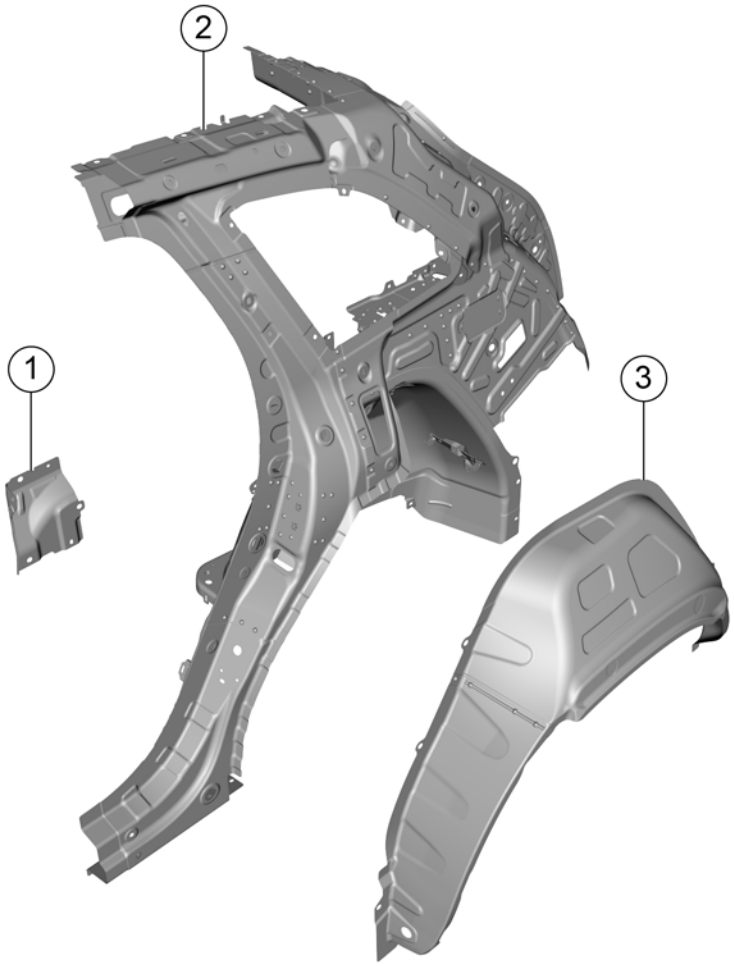
1. Inner plate assembly for left side wall front
2. Left side wall front reinforcing plate assembly
3. Left A-pillar inner plate assembly

4.1.1.8 Middle pillars



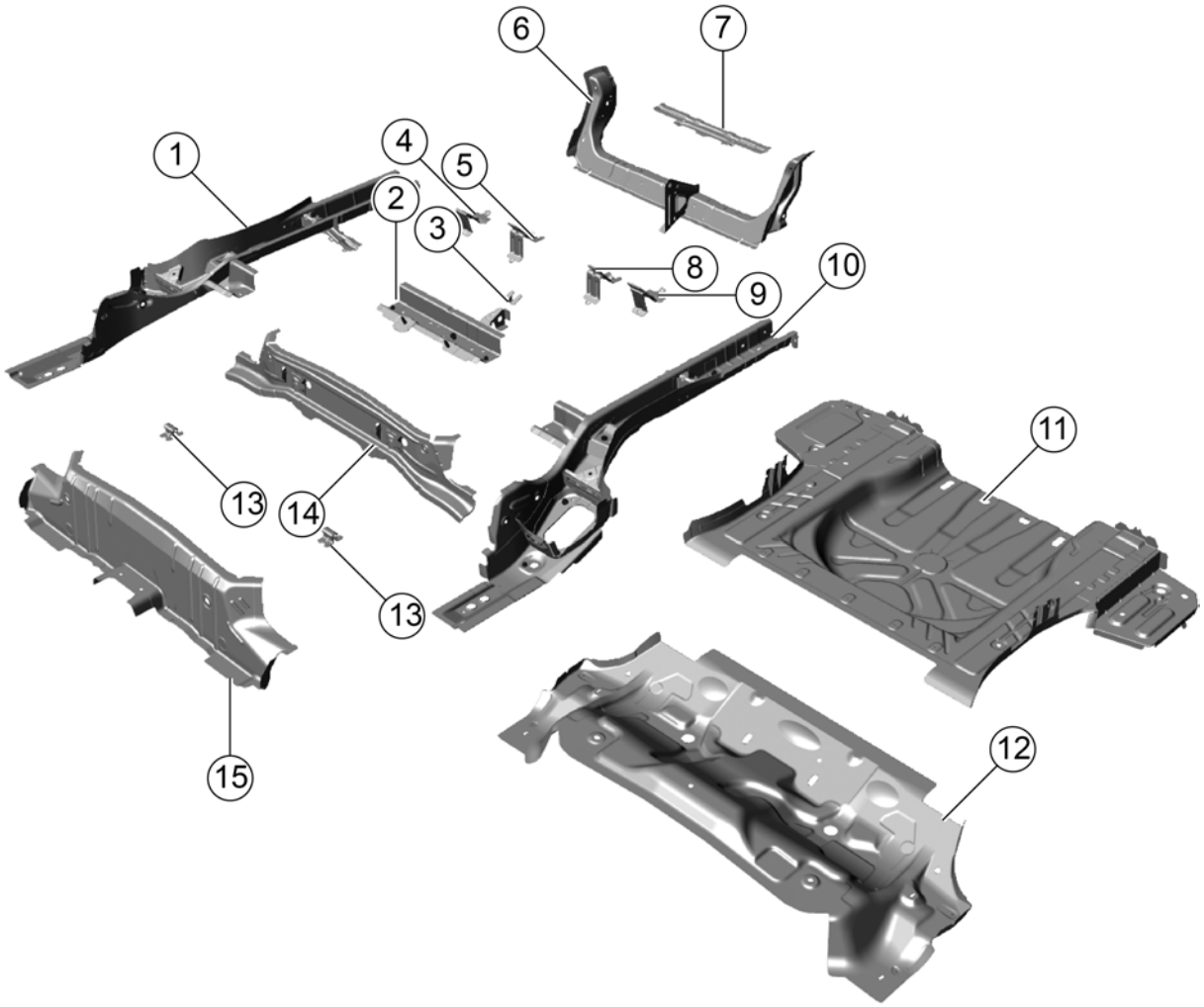
1. Inner plate assembly for left side wall front
2. Left side wall front reinforcing plate assembly

4.1.1.9 Rear pillars



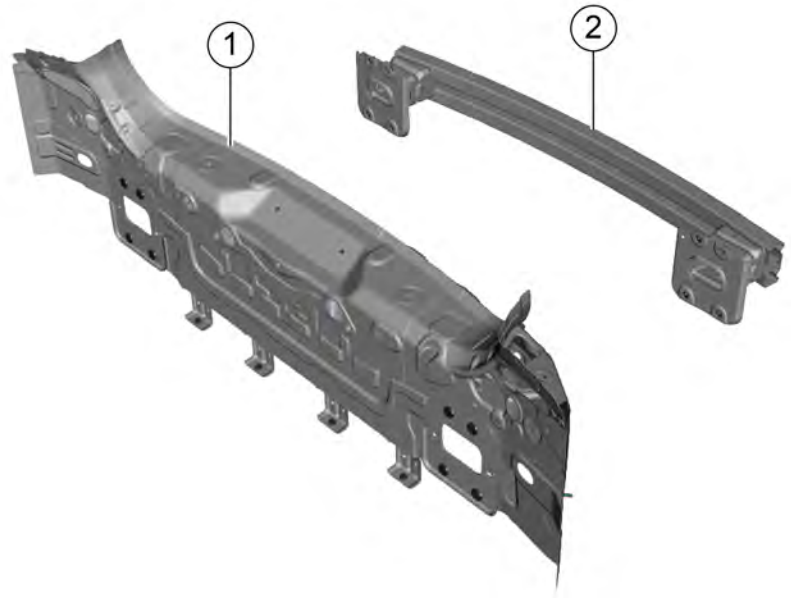
1. Front connection reinforcing plate of left rear wheel cover
2. Left rear wheel housing assembly
3. Left rear wheel housing outer plate assembly

4.1.1.10 Rear Floor



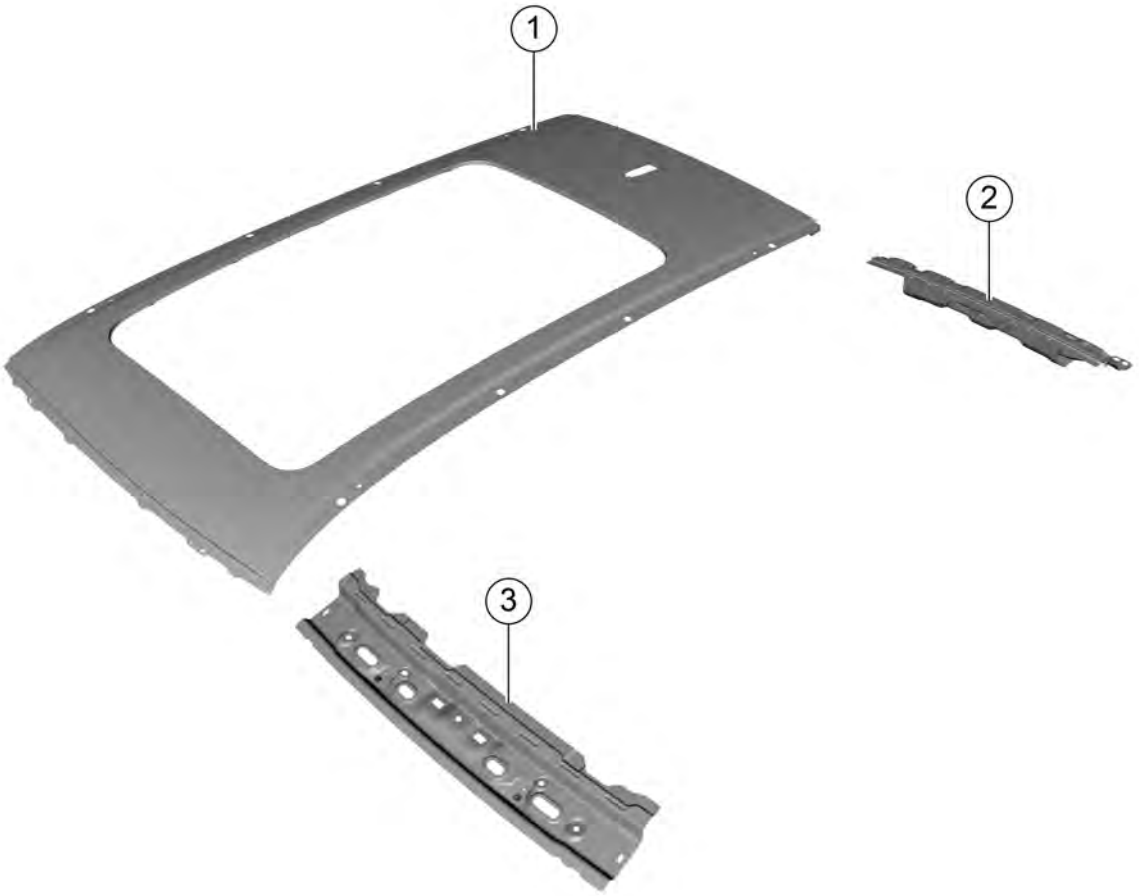
1. Rear floor right side member assembly
2. Middle floor rear lower crossmember assembly
3. Rear seat cushion fixing bracket
4. Right bracket assembly outside child seat
5. Right bracket assembly inside child seat
6. Rear floor upper crossmember assembly
7. Spare tire compartment reinforcing beam
8. Inner left bracket assembly of child seat
9. Left bracket assembly outside child seat
10. Rear floor left side member assembly
11. Rear floor assembly
12. Middle floor
13. Rear seat fixing bracket
14. Middle floor front lower crossmember assembly
15. Middle floor front connecting plate assembly

4.1.1.11 Rear wall



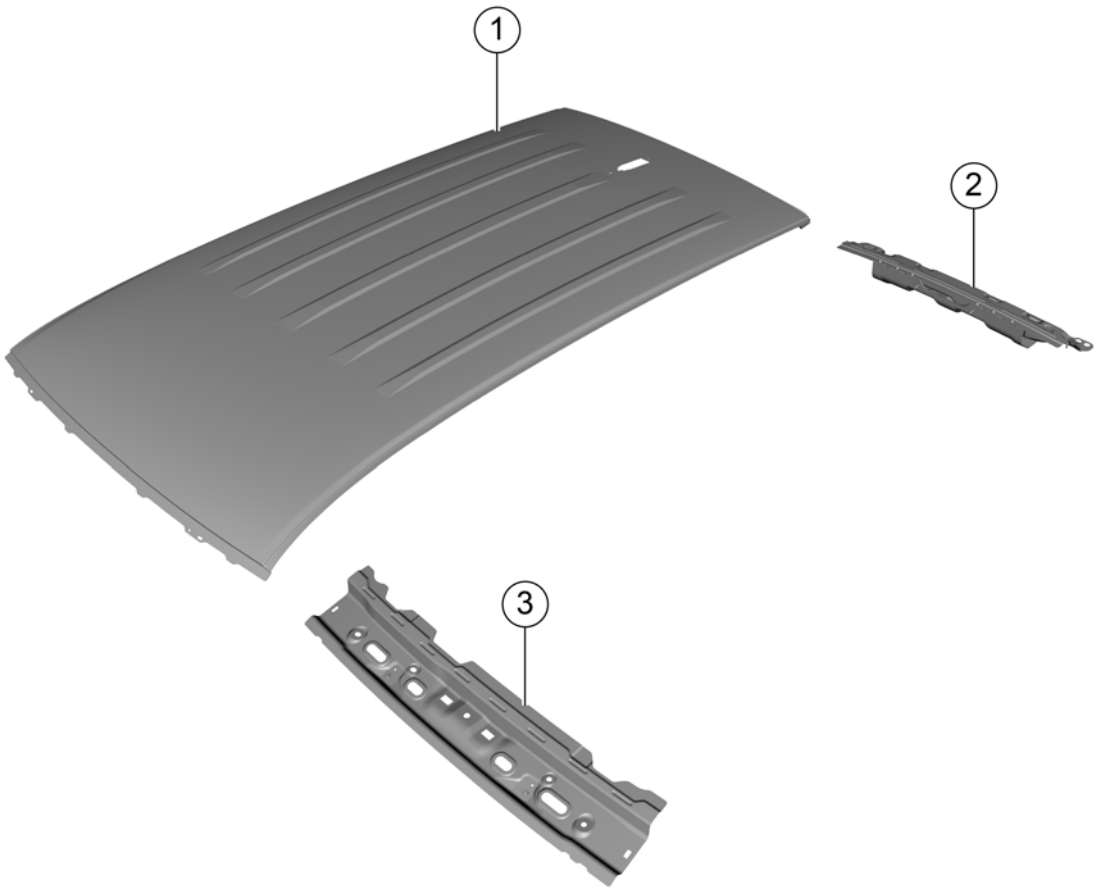
1. Rear wall panel assembly
2. Rear anti-intrusion beam assembly

4.1.1.12 Roof (panoramic sunroof)



1. Roof assembly
2. Assembly-rear panel roof bow
3. Assembly-front panel roof bow

4.1.1.13 Roof (without sunroof)



1. Roof assembly
2. Assembly-rear panel roof bow
3. Assembly-front panel roof bow

4.1.2 Specifications of body panel metal parts

4.1.2.1 Specifications of body panel metal parts

Part Name	Material Name	Material Designation	Thickness	
			(mm)	(in)
Left front door outer panel	zinc plating	HC180BD+Z 50/50	0.65	0.026
Left front door anti-collision beam	Thermal molded steel general plate	CR950/1300HS	1.4	0.055
Inner panel of left front door	zinc plating	DC56D+Z 50/50	0.7	0.028
Left front door stopper reinforcing plate	Cold-rolled steel plate	HC340/590DP	1.4	0.055
Left front door lock reinforcing plate	zinc plating	HC340/590DPD+Z 50/50	1.2	0.047
Left exterior rearview mirror reinforcing plate	Cold-rolled steel plate	DC01	1.8	0.071
Left front door and window frame reinforcing plate	zinc plating	DC54D+Z 50/50	0.8	0.031
Front guide rail of left front door	Cold-rolled steel plate	DC01	0.8	0.031
Front guide rail bracket front door LH	Cold-rolled steel plate	DC01	1.6	0.063
Left front door upper hinge reinforcing plate	Cold-rolled steel plate	HC340/590DP	1.4	0.055
Left front door upper reinforcing plate	Cold-rolled steel plate	DC03	0.7	0.028
Lower reinforcing plate of front left door outer panel	Cold-rolled steel plate	DC03	0.65	0.026
Left front door lower hinge reinforcing plate	Cold-rolled steel plate	HC340/590DP	1.4	0.055
Right front door outer panel	zinc plating	HC180BD+Z 50/50	0.65	0.026
Front right door anti-collision beam	Thermal molded steel general plate	CR950/1300HS	1.4	0.055
Front right door panel	zinc plating	DC56D+Z 50/50	0.7	0.028
Right front door stopper reinforcing plate	Cold-rolled steel plate	HC340/590DP	1.4	0.055

Part Name	Material Name	Material Designation	Thickness	
			(mm)	(in)
Front right door lock reinforcing plate	zinc plating	HC340/590DPD+Z 50/50	1.2	0.047
Right exterior rearview mirror reinforcing plate	Cold-rolled steel plate	DC01	1.8	0.071
Right front door and window frame reinforcing plate	zinc plating	DC54D+Z 50/50	0.8	0.031
Front guide rail of front right door	Cold-rolled steel plate	DC01	0.8	0.031
Front guide rail bracket front right door	Cold-rolled steel plate	DC01	1.6	0.063
Front right door upper hinge reinforcing plate	Cold-rolled steel plate	HC340/590DP	1.4	0.055
Right front door upper reinforcing plate	Cold-rolled steel plate	DC03	0.7	0.028
Lower reinforcing plate of front right door outer panel	Cold-rolled steel plate	DC03	0.65	0.026
Front right door lower hinge reinforcing plate	Cold-rolled steel plate	HC340/590DP	1.4	0.055
Left rear door outer panel	zinc plating	HC180BD+Z 50/50	0.65	0.026
Left rear door anti-collision beam	Thermal molded steel general plate	CR950/1300HS	1.4	0.055
Left rear door inner panel	zinc plating	DC56D+Z 50/50	0.7	0.028
Left rear door stopper reinforcing plate	Cold-rolled steel plate	HC340/590DP	1.4	0.055
Left rear door lock reinforcing plate	zinc plating	HC340/590DPD+Z 50/50	1.2	0.047
Left rear door and window frame reinforcing plate	zinc plating	DC54D+Z 50/50	0.8	0.031
Front guide rail of left rear door	Cold-rolled steel plate	DC01	0.8	0.031
Front guide rail bracket of left rear door	Cold-rolled steel plate	DC01	1.6	0.063
Left rear door upper hinge reinforcing plate	Cold-rolled steel plate	HC340/590DP	1.4	0.055

Part Name	Material Name	Material Designation	Thickness	
			(mm)	(in)
Left rear door upper reinforcing plate	Cold-rolled steel plate	DC03	0.7	0.028
Left rear door outer plate lower reinforcing plate	Cold-rolled steel plate	DC03	0.65	0.026
Left rear door lower hinge reinforcing plate	Cold-rolled steel plate	HC340/590DP	1.4	0.055
Right rear door outer panel	zinc plating	HC180BD+Z 50/50	0.65	0.026
Right rear door anti-collision beam	Thermal molded steel general plate	CR950/1300HS	1.4	0.055
Right rear door inner panel	zinc plating	DC56D+Z 50/50	0.7	0.028
Right rear door stopper reinforcing plate	Cold-rolled steel plate	HC340/590DP	1.4	0.055
Reinforcing plate rear door lock catch RH	zinc plating	HC340/590DPD+Z 50/50	1.2	0.047
Right rear door and window frame reinforcing plate	zinc plating	DC54D+Z 50/50	0.8	0.031
Left rear door and window frame reinforcing plate bracket	Cold-rolled steel plate	DC01	1.4	0.055
Front guide rail of right rear door	Cold-rolled steel plate	DC01	0.8	0.031
Front guide rail bracket rear door RH	Cold-rolled steel plate	DC01	1.6	0.063
Right rear door upper hinge reinforcing plate	Cold-rolled steel plate	HC340/590DP	1.4	0.055
Right rear door upper reinforcing plate	Cold-rolled steel plate	DC03	0.7	0.028
Lower reinforcing plate of right rear door outer panel	Cold-rolled steel plate	DC03	0.65	0.026
Right rear door lower hinge reinforcing plate	Cold-rolled steel plate	HC340/590DP	1.4	0.055
Upper panel of the back door	zinc plating	DC56D+Z 50/50	0.7	0.028

Part Name	Material Name	Material Designation	Thickness	
			(mm)	(in)
Back door lower outer plate	Low-carbon steel electroplating plate	DC07E+Z	0.8	0.031
Backdoor middle outer plate	zinc plating	DC56D+Z 50/50	0.7	0.028
Backdoor inner plate	zinc plating	DC56D+Z 50/50	0.7	0.028
Backdoor left hinge mounting reinforcing plate	Cold-rolled steel plate	DC01	1.2	0.047
Backdoor right hinge mounting reinforcing plate	Cold-rolled steel plate	DC01	1.2	0.047
Backdoor wiper motor mounting reinforcing plate	Cold-rolled steel plate	DC01	1.2	0.047
Backdoor lock reinforcing plate	Cold-rolled steel plate	DC01	1.2	0.047
Left reinforcing plate of back door inner plate	Low-carbon steel conventional plate	DC06	1.2	0.047
Left reinforcing plate of back door electric stay	Cold-rolled steel plate	DC01	1.6	0.063
Left air brace reinforcing plate of tail gate	Cold-rolled steel plate	DC01	1.6	0.063
Right reinforcing plate of back door inner plate	Low-carbon steel conventional plate	DC06	1.2	0.047
Right reinforcing plate of back door electric stay	Cold-rolled steel plate	DC01	1.6	0.063
Right air brace reinforcing plate of back door	Cold-rolled steel plate	DC01	1.6	0.063
Outer panel of engine hood	zinc plating	HC180BD+Z 50/50	0.65	0.026
Inner panel of engine hood	zinc plating	DC54D+Z 50/50	0.6	0.024
Reinforcing plate engine hood hinge mounting LH	Low-carbon steel conventional plate	DC51D+Z 50/50	1.4	0.055

Part Name	Material Name	Material Designation	Thickness	
			(mm)	(in)
Reinforcing plate engine hood hinge mounting RH	Low-carbon steel conventional plate	DC51D+Z 50/50	1.4	0.055
Engine hood outer plate supporting plate	zinc plating	DC54D+Z 50/50	0.65	0.026
Engine hood buckle fixing plate	Low-carbon steel conventional plate	DC51D+Z 50/50	1.2	0.047
Middle bracket for radiator module	zinc plating	HC260LAD+Z 50/50	1.2	0.047
Radiator module left mounting plate	zinc plating	DC51D+Z	1.8	0.071
Radiator module right mounting plate	zinc plating	DC51D+Z	1.8	0.071
Lower mounting bracket of air filter	zinc plating	DC54D+Z 50/50	2	0.079
Front left fender	zinc plating	HC180BD+Z 50/50	0.65	0.026
Mounting bracket front wing LH A	zinc plating	HC260LAD+Z 50/50	1.2	0.047
Front right fender	zinc plating	HC180BD+Z 50/50	0.65	0.026
Mounting bracket front wing RH A	zinc plating	HC260LAD+Z 50/50	1.2	0.047
Front left lower panel	zinc plating	HC260LAD+Z 50/50	0.8	0.031
Right lower panel of front wall	zinc plating	HC260LAD+Z 50/50	0.8	0.031
Reinforcing plate of front wall middle channel	zinc plating	HC260LAD+Z 50/50	1	0.039
Navigation reinforcing	Low-alloy high-strength steel general plate	HC260LA	1.5	0.059
Mounting bracket bottom shield	zinc plating	HC260LAD+Z 50/50	1	0.039
Water tank heat shield bracket	zinc plating	HC260LAD+Z 50/50	1	0.039
Front wall cross member	Double-phase steel plating plate	HC420/780DPD+Z 50/50	1.9	0.075
Front panel	zinc plating	HC260LAD+Z 50/50	1	0.039
Front wall cross member	Double-phase steel plating plate	HC420/780DPD+Z 50/50	1.7	0.067

Part Name	Material Name	Material Designation	Thickness	
			(mm)	(in)
Left connecting plate of middle crossmember front wall	zinc plating	DC54D+Z 50/50	3	0.118
Right connecting plate of middle crossmember front wall	zinc plating	DC54D+Z 50/50	3	0.118
Left reinforcing plate of front wall cross beam	zinc plating	HC340/590DPD+Z 50/50	2.4	0.094
Right reinforcing plate of front wall crossmember	zinc plating	HC340/590DPD+Z 50/50	2.4	0.094
Reinforcing plate of front wall middle channel	Double-phase steel	VDA 239-100 CR330Y590T-DP	2	0.079
Front wall upper reinforcing plate	zinc plating	HC260LAD+Z 50/50	0.7	0.028
Left front side member inner plate body	zinc plating	HC340/590DPD+Z 50/50	2.1	0.083
Left front side member inner plate body	zinc plating	HC340/590DPD+Z 50/50	1.9	0.075
Rear body of FL side member	Thermal stamping aluminum and silicon coating steel plate	Vcs5730,4-hs950y1300t-boron	1.8	0.071
RL mounting bracket of subframe	Low alloy high-strength steel	HD340LAD+Z 50/50	3.2	0.126
Rear section of front left side member outer panel	Double-phase steel plating plate	HC420/780DPD+Z 50/50	1.4	0.055
Front reinforcing plate FL side member inner panel	zinc plating	HC340/590DPD+Z 50/50	1.4	0.055
Left connecting plate of front wall panel	zinc plating	HC260LAD+Z 50/50	0.8	0.031
Slide front left mounting plate	Double-phase steel plating plate	HC420/780DPD+Z 50/50	1.4	0.055
Left slide reinforcing bracket	Double-phase steel plating plate	HC420/780DPD+Z 50/50	1.4	0.055
Battery bracket	zinc plating	HC260LAD+Z 50/50	1.5	0.059

Part Name	Material Name	Material Designation	Thickness	
			(mm)	(in)
Fixing bracket of booster system	zinc plating	HC260LAD+Z 50/50	0.8	0.031
FL mounting plate of subframe	zinc plating	HC260LAD+Z 50/50	1.5	0.059
Front supporting plate of engine suspension FL	zinc plating	HC260LAD+Z 50/50	1.5	0.059
Rear supporting plate of engine suspension FL	zinc plating	HC260LAD+Z 50/50	2.5	0.098
Engine front suspension side supporting plate	zinc plating	HC260LAD+Z 50/50	2.5	0.098
Front right side member inner plate body	zinc plating	HC340/590DPD+Z 50/50	2.1	0.083
Front right side member inner plate body	zinc plating	HC340/590DPD+Z 50/50	1.9	0.075
Rear body of FR side member	Thermal stamping aluminum and silicon coating steel plate	VCS 5730,4-HS950Y1300T-BORON	1.8	0.071
RR mounting bracket of subframe	Low alloy high-strength steel	HD340LAD+Z 50/50	3.2	0.126
Rear section of front right side member outer panel	Double-phase steel plating plate	HC420/780DPD+Z 50/50	1.4	0.055
Front reinforcing plate FR side member inner panel	zinc plating	HC340/590DPD+Z 50/50	1.2	0.047
Front reinforcing plate FR side member inner panel	zinc plating	HC340/590DPD+Z 50/50	1.7	0.067
Right connecting plate of front wall panel	zinc plating	HC260LAD+Z 50/50	0.8	0.031
Right slide reinforcing bracket	Double-phase steel plating plate	HC420/780DPD+Z 50/50	1.4	0.055
FR mounting plate of subframe	zinc plating	HC260LAD+Z 50/50	1.5	0.059

Part Name	Material Name	Material Designation	Thickness	
			(mm)	(in)
Front mounting bracket right suspension	zinc plating	HC260LAD+Z 50/50	1.5	0.059
Rear mounting bracket right suspension	zinc plating	HC260LAD+Z 50/50	1.5	0.059
Front left wheel housing	zinc plating	HC260LAD+Z 50/50	1.4	0.055
FL shock absorber body	zinc plating	HC340/590DPD+Z 50/50	2	0.079
Reinforcing plate outer suspension bracket LH	zinc plating	HC260LAD+Z 50/50	1.4	0.055
Front left front support plate of drip rail front reinforcing plate	zinc plating	HC260LAD+Z 50/50	1.3	0.051
Left rear support plate of reinforcing plate front of drip rail	zinc plating	HC260LAD+Z 50/50	1.3	0.051
Left front wheel housing rear connecting plate	zinc plating	HC260LAD+Z 50/50	0.7	0.028
HECU mounting bracket	zinc plating	HC260LAD+Z 50/50	1.2	0.047
Front connecting plate of left front wheel housing	zinc plating	HC260LAD+Z 50/50	0.8	0.031
Upper mounting reinforcing plate of left suspension	zinc plating	HC260LAD+Z 50/50	1.4	0.055
Upper mounting bracket of left suspension	zinc plating	HC260LAD+Z 50/50	2	0.079
Lower front reinforcing plate of FL wheel arch	zinc plating	HC260LAD+Z 50/50	1	0.039
Right front wheel housing	zinc plating	HC260LAD+Z 50/50	1.4	0.055
FR shock absorber body	zinc plating	HC340/590DPD+Z 50/50	2	0.079
Reinforcing plate outer suspension bracket RH	zinc plating	HC260LAD+Z 50/50	1.4	0.055

Part Name	Material Name	Material Designation	Thickness	
			(mm)	(in)
Expansion water tank supporting base	zinc plating	HC260LAD+Z 50/50	1.8	0.071
Front support plate right front support plate of drip rail front reinforcing plate	zinc plating	HC260LAD+Z 50/50	1.3	0.051
Flow rail front reinforcing plate right rear supporting plate	zinc plating	HC260LAD+Z 50/50	1.3	0.051
Rear connecting plate of front right wheel housing	zinc plating	HC260LAD+Z 50/50	0.7	0.028
Lower front reinforcing plate of FR wheel arch	zinc plating	HC260LAD+Z 50/50	1	0.039
Front connecting plate of right front wheel housing	zinc plating	HC260LAD+Z 50/50	1.2	0.047
Upper mounting bracket of right suspension	zinc plating	HC260LAD+Z 50/50	1.5	0.059
Lower front reinforcing plate of FR wheel arch	zinc plating	HC260LAD+Z 50/50	1	0.039
Left front side member outer plate body	zinc plating	HC340/590DPD+Z 50/50	1.9	0.075
Left front side member outer plate body	zinc plating	HC340/590DPD+Z 50/50	1.7	0.067
Front reinforcing plate FL side member inner panel	zinc plating	HC340/590DPD+Z 50/50	1.3	0.051
Front left front end plate	Low alloy high-strength steel	HD340LAD+Z 50/50	3	0.118
Front reinforcing plate FL side member inner panel	Low alloy high-strength steel	HD340LAD+Z 50/50	3	0.118
Left front side member inner plate rear clapboard reinforcing plate	Double-phase steel plating plate	HC420/780DPD+Z 50/50	2.3	0.091

Part Name	Material Name	Material Designation	Thickness	
			(mm)	(in)
Left front side member inner plate rear clapboard	Double-phase steel plating plate	HC420/780DPD+Z 50/50	2	0.079
Right front side member outer plate body	zinc plating	HC340/590DPD+Z 50/50	1.9	0.075
Right front side member outer plate body	zinc plating	HC340/590DPD+Z 50/50	1.7	0.067
Front reinforcing plate FR side member inner panel	zinc plating	HC340/590DPD+Z 50/50	1.3	0.051
Front right end plate of front side member	Low alloy high-strength steel	HD340LAD+Z 50/50	3	0.118
Front reinforcing plate FR side member inner panel	Low alloy high-strength steel	HD340LAD+Z 50/50	3	0.118
Rear clapboard reinforcing plate of front right side member inner	Double-phase steel plating plate	HC420/780DPD+Z 50/50	2.3	0.091
Front right side member inner plate rear clapboard	Double-phase steel plating plate	HC420/780DPD+Z 50/50	2	0.079
Left A-pillar inner plate	zinc plating	HC340/590DPD+Z 50/50	2	0.079
Left A-pillar inner panel upper reinforcing plate	Low-alloy high-strength steel general plate	HC260LA	1.4	0.055
Left A-pillar inner plate middle supporting plate	Cold-rolled steel plate	HC420/780DP	1.6	0.063
Left A-pillar inner panel lower reinforcing plate	Cold-rolled steel plate	HC420/780DP	1.6	0.063
Lower front reinforcing plate of FL wheel arch	Low-alloy high-strength steel electroplating plate	HC300LAD+Z 50/50	1.8	0.071
Left A-pillar inner shield bracket	Low-alloy high-strength steel general plate	HC260LA	1	0.039

Part Name	Material Name	Material Designation	Thickness	
			(mm)	(in)
CCB left mounting bracket	Low-alloy high-strength steel general plate	HC260LA	2	0.079
Left A-pillar inner panel reinforcing plate	Cold-rolled steel plate	HC420/780DP	1.8	0.071
Left mounting bracket of wiper motor	Low-carbon steel conventional plate	DC51D+Z 50/50	1.6	0.063
Right A-pillar inner plate	zinc plating	HC340/590DPD+Z 50/50	2	0.079
Right A-pillar inner panel reinforcing plate	Low-alloy high-strength steel general plate	HC260LA	1.4	0.055
Right A-pillar inner plate middle reinforcing plate	Cold-rolled steel plate	HC420/780DP	1.6	0.063
Right A-pillar inner plate middle supporting plate	Cold-rolled steel plate	HC420/780DP	1.8	0.071
Right A-pillar inner lower panel reinforcing plate	Cold-rolled steel plate	HC420/780DP	1.6	0.063
Lower front reinforcing plate of FR wheel arch	Low-alloy high-strength steel electroplating plate	HC300LAD+Z 50/50	1.8	0.071
Right A-pillar inner shield bracket	Low-alloy high-strength steel general plate	HC260LA	1	0.039
CCB right mounting bracket	Low-alloy high-strength steel general plate	HC260LA	2	0.079
Left front wheel housing outer plate support plate	Low-alloy high-strength steel electroplating plate	HC300LAD+Z 50/50	1.8	0.071
Right front wheel housing outer plate supporting plate	Low-alloy high-strength steel electroplating plate	HC300LAD+Z 50/50	1.8	0.071
Front left bracket of instrument crossmember	Cold-rolled steel plate	DC01	0.8	0.031

Part Name	Material Name	Material Designation	Thickness	
			(mm)	(in)
Front windshield heating joint mounting bracket	Cold-rolled steel plate	DC01	1	0.039
Upper section plate front wall	Cold-rolled steel plate	DC04	1.2/0.8/1.2	0.047/0.31/0.047
Ventilation cover plate bracket	Low-carbon steel conventional plate	DC51D+Z 50/50	0.8	0.031
Left bracket wiper motor	Low-carbon steel conventional plate	DC51D+Z 50/50	1.2	0.047
Front wiper middle bracket	Low-carbon steel conventional plate	DC51D+Z 50/50	1.2	0.047
Right connecting bracket of drip rail	zinc plating	DC54D+Z 50/50	0.7	0.028
Flow rail body	zinc plating	HC260LAD+Z 50/50	0.7	0.028
Front reinforcing plate of drip rail	zinc plating	HC260LAD+Z 50/50	1	0.039
Upper left reinforcing plate at front of drip rail	zinc plating	HC260LAD+Z 50/50	1.1	0.043
Upper right reinforcing plate of drip rail front	zinc plating	HC260LAD+Z 50/50	1.1	0.043
BFB ground wire bracket	Low-alloy high-strength steel electroplating plate	HC340LAD+Z 50/50	1.2	0.047
Front wiper right mounting bracket	zinc plating	HC260LAD+Z 50/50	1.4	0.055
Left support bracket of front wall upper plate	zinc plating	HC260LAD+Z 50/50	1.2	0.047
Left connecting plate of drip rail	Low-alloy high-strength steel electroplating plate	HC340LAD+Z 50/50	1.7	0.067
Right connecting plate of drip rail	Low-alloy high-strength steel electroplating plate	HC340LAD+Z 50/50	1.7	0.067
Right headlamp crossmember	zinc plating	DC54D+Z 50/50	1.2	0.047
Left headlamp cross beam	zinc plating	DC54D+Z 50/50	1.2	0.047
Front left mounting bracket of front left seat	Cold-rolled steel plate	HC340/590DP	1.2	0.047

Part Name	Material Name	Material Designation	Thickness	
			(mm)	(in)
Front crossmember of front left seat	Cold-rolled steel plate	HC420/780DP	1.3	0.051
Front crossmember of front right seat	Cold-rolled steel plate	HC340/590DP	1.2	0.047
Front crossmember of front right seat	Cold-rolled steel plate	HC420/780DP	1.3	0.051
Left rear seat mounting bracket	Cold-rolled steel plate	HC420/780DP	1.2	0.047
Rear crossmember of left front seat	Low-alloy high-strength steel general plate	HC300LA	1.3	0.051
Right rear seat mounting bracket	Cold-rolled steel plate	HC420/780DP	1.2	0.047
Rear crossmember of front right seat	Low-alloy high-strength steel general plate	HC300LA	1.3	0.051
Parking brake cable bracket	zinc plating	HC260LAD+Z 50/50	1	0.039
VCU mounting bracket	Low-alloy high-strength steel general plate	HC260LA	1	0.039
Left front floor upper side member	Cold-rolled steel plate	HC420/780DP	1.5	0.059
Front right floor upper side member	Cold-rolled steel plate	HC420/780DP	1.5	0.059
Front floor	zinc plating	HC260LAD+Z 50/50	0.7	0.028
Front floor	zinc plating	DC54D+Z 50/50	0.7	0.028
Left side member of front floor	Thermal stamping aluminum and silicon coating steel plate	VCS 5730,4-HS950Y1300T-BORON	1.2	0.047
Right side member of front floor	Thermal stamping aluminum and silicon coating steel plate	VCS 5730,4-HS950Y1300T-BORON	1.2	0.047
Left side member of front floor	Thermal stamping aluminum and silicon coating steel plate	VCS 5730,4-HS950Y1300T-BORON	1	0.039
Right side member of front floor	Thermal stamping aluminum and silicon coating steel plate	VCS 5730,4-HS950Y1300T-BORON	1	0.039

Part Name	Material Name	Material Designation	Thickness	
			(mm)	(in)
Left reinforcing beam of middle channel	Low-alloy high-strength steel electroplating plate	HC300LAD+Z 50/50	1	0.039
Drive shaft left front mounting nut plate	Low-alloy high-strength steel electroplating plate	HC260LAD+Z 98/98	1.5	0.059
Drive shaft left rear mounting nut plate	Low-alloy high-strength steel electroplating plate	HC260LAD+Z 98/98	1.5	0.059
Right reinforcing beam of middle channel	Low-alloy high-strength steel electroplating plate	HC300LAD+Z 50/50	1	0.039
Drive shaft front right mounting nut plate	Low-alloy high-strength steel electroplating plate	HC260LAD+Z 98/98	1.5	0.059
Drive shaft right rear mounting nut plate	Low-alloy high-strength steel electroplating plate	HC260LAD+Z 98/98	1.5	0.059
Left mounting bracket of dashboard assembly	Low-alloy high-strength steel general plate	HC260LA	1	0.039
Right mounting bracket of dashboard assembly	Low-alloy high-strength steel general plate	HC260LA	1	0.039
Dashboard connecting plate	Cold-rolled steel plate	DC04	2	0.079
Shifter mounting reinforcing plate	zinc plating	HC260LAD+Z 50/50	2	0.079
Front floor middle channel reinforcing plate	Thermal stamping aluminum and silicon coating steel plate	VCS 5730,4-HS950Y1300T-BORON	1	0.039
Middle channel rear end plate	zinc plating	HC260LAD+Z 50/50	1.2	0.047
Front reinforcing plate middle channel lower	zinc plating	HC260LAD+Z 50/50	1.5	0.059
Left door sill inner plate	Double-phase steel plating plate	HC420/780DPD+Z 50/50	1.3	0.051
Left door sill inner plate front reinforcing plate	Cold-rolled steel plate	HC420/780DP	2	0.079

Part Name	Material Name	Material Designation	Thickness	
			(mm)	(in)
Left door sill shield mounting bracket	Low-alloy high-strength steel general plate	HC260LA	1	0.039
Left door sill rear section connecting plate	Double-phase steel plating plate	HC420/780DPD+Z 50/50	1.3	0.051
Right door sill inner plate	Double-phase steel plating plate	HC420/780DPD+Z 50/50	1.3	0.051
Right door sill inner plate reinforcing plate	Cold-rolled steel plate	HC420/780DP	2	0.079
Right door sill shield mounting bracket	Low-alloy high-strength steel general plate	HC260LA	1	0.039
Right door sill rear section front connecting plate	Double-phase steel plating plate	HC420/780DPD+Z 50/50	1.3	0.051
Front clapboard of left inner side member	Cold-rolled steel plate	HC420/780DP	1.6	0.063
Inner plate rear connecting plate of left door sill	Low-alloy high-strength steel general plate	HC340LA	1.2	0.047
Inner plate rear reinforcing plate of left door sill 2	Low-alloy high-strength steel general plate	HC260LA	1.2	0.047
Trailing arm mounting plate LH	Low-alloy high-strength steel electroplating plate	HC260LAD+Z 98/98	2.5	0.098
Left side member front inner reinforcing plate	zinc plating	HC260LAD+Z 50/50	1.5	0.059
Rear left mounting bracket of exhaust pipe	zinc plating	HC260LAD+Z 50/50	1.6	0.063
Left front mounting reinforcing bracket of rear subframe	zinc plating	HC260LAD+Z 50/50	1.2	0.047
Rear left rear mounting plate of rear subframe	zinc plating	HC260LAD+Z 50/50	2	0.079
Rear floor left side member	Thermal stamping aluminum and silicon coating steel plate	VCS 5730,4-HS950Y1300T-BORON	1.9/1.7	0.075/0.67

Part Name	Material Name	Material Designation	Thickness	
			(mm)	(in)
Front side reinforcing plate of left rear side member	Double-phase steel plating plate	HC420/780DPD+Z 50/50	1.5	0.059
Left connecting plate of spare tire compartment reinforcing beam	zinc plating	HC260LAD+Z 50/50	1.5	0.059
Slide left rear mounting plate	Low-alloy high-strength steel electroplating plate	HC340LAD+Z 115/115	2	0.079
Left connecting plate for lower cross beam rear middle floor	zinc plating	DC56D+Z 50/50	1.6	0.063
Rear left side member supporting plate	Low alloy high-strength steel	HD340LAD+Z 50/50	3.5	0.138
FL mounting plate of subframe	Low-alloy high-strength steel electroplating plate	HC340LAD+Z 50/50	2	0.079
Front inner reinforcing plate right side member	zinc plating	HC260LAD+Z 50/50	1.5	0.059
Rear right seat belt mounting reinforcing plate	Low-alloy high-strength steel electroplating plate	HC260LAD+Z 98/98	2	0.079
Trailing arm mounting plate RH	Low-alloy high-strength steel electroplating plate	HC260LAD+Z 98/98	2.5	0.098
Rear right mounting bracket of exhaust pipe	zinc plating	HC260LAD+Z 50/50	1.6	0.063
Front right mounting reinforcing bracket of rear subframe	zinc plating	HC260LAD+Z 50/50	1.2	0.047
Rear right rear mounting plate of rear subframe	zinc plating	HC260LAD+Z 50/50	2	0.079
Rear floor right side member	Thermal stamping aluminum and silicon coating steel plate	VCS 5730,4-HS950Y1300T-BORON	1.9/1.7	0.075/0.67

Part Name	Material Name	Material Designation	Thickness	
			(mm)	(in)
Front side reinforcing plate of right rear side member	Double-phase steel plating plate	HC420/780DPD+Z 50/50	1.5	0.059
Right connecting plate of spare tire compartment reinforcing beam	zinc plating	HC260LAD+Z 50/50	1.5	0.059
Slide right rear mounting plate	Low-alloy high-strength steel electroplating plate	HC340LAD+Z 115/115	2	0.079
Right connecting plate for lower cross beam middle floor rear	zinc plating	DC56D+Z 50/50	1.6	0.063
Rear support plate right rear side member	Low alloy high-strength steel	HD340LAD+Z 50/50	3.5	0.138
FR mounting plate of subframe	Low-alloy high-strength steel electroplating plate	HC340LAD+Z 50/50	2	0.079
Middle floor	Cold-rolled steel plate	DC04	0.7	0.028
Middle floor rear lower crossmember	zinc plating	HC340/590DPD+Z 50/50	1.2	0.047
Middle floor front lower crossmember	zinc plating	HC340/590DPD+Z 50/50	1.2	0.047
Fuel tank mounting fixing plate	zinc plating	DC54D+Z 50/50	1.5	0.059
Fuel tank mounting bracket reinforcing plate	zinc plating	HC260LAD+Z 50/50	1	0.039
Rear seat fixing bracket	Low-alloy high-strength steel general plate	HC260LA	2	0.079
Rear seat cushion fixing bracket	Low-alloy high-strength steel general plate	HC260LA	2	0.079
Left front connecting plate of upper cross beam rear floor	zinc plating	DC56D+Z 50/50	2	0.079
Front right connecting plate of upper cross beam rear floor	zinc plating	DC56D+Z 50/50	2	0.079

Part Name	Material Name	Material Designation	Thickness	
			(mm)	(in)
Beam C ring	zinc plating	HC340/590DPD+Z 50/50	1	0.039
Rear seat fixing bracket mounting plate	Low-carbon steel conventional plate	DC05	2	0.079
Left rear connecting plate of upper cross beam rear floor	zinc plating	DC56D+Z 50/50	1	0.039
Right rear connecting plate of upper cross beam rear floor	zinc plating	DC56D+Z 50/50	1	0.039
Middle mounting bracket of rear seat	zinc plating	HC340/590DPD+Z 50/50	2.4	0.094
Left bracket inside child seat	Low-alloy high-strength steel general plate	HC260LA	1.8	0.071
Left bracket outside child seat	Low-alloy high-strength steel general plate	HC260LA	1.8	0.071
Left rear wheel cover pillar lower supporting plate	Low-alloy high-strength steel general plate	HC340LA	1.2	0.047
Rear connecting plate of left rear side member reinforcing plate	Low-alloy high-strength steel electroplating plate	HC340LAD+Z 50/50	1.7	0.067
Right rear wheel cover pillar lower supporting plate	Low-alloy high-strength steel general plate	HC340LA	1.2	0.047
Rear connecting plate of right rear side member reinforcing plate	Low-alloy high-strength steel electroplating plate	HC340LAD+Z 50/50	1.7	0.067
Rear floor	Low-alloy high-strength steel general plate	HC300LA	0.7	0.028
Fixing bracket of spare tire	Low-alloy high-strength steel general plate	HC260LA	1	0.039
Battery tray	zinc plating	DC54D+Z 50/50	1.4	0.055

Part Name	Material Name	Material Designation	Thickness	
			(mm)	(in)
Fixing bracket of grounding wire	Low-alloy high-strength steel general plate	HC260LA	1.2	0.047
Spare tire compartment reinforcing beam	zinc plating	HC260LAD+Z 50/50	1	0.039
12V battery tray	Low-carbon steel electroplating plate	DC52D+Z 50/50	1	0.039
Rear floor right rear connecting plate	Low-carbon steel electroplating plate	DC52D+Z 50/50	0.9	0.035
Battery tray strap	Low-carbon steel electroplating plate	DC52D+Z 50/50	2	0.079
Left mounting bracket of 12V battery	Low-carbon steel electroplating plate	DC52D+Z 50/50	1	0.039
Middle floor front connecting plate	Thermal stamping aluminum and silicon coating steel plate	VCS 5730,4-HS950Y1300T-BORON	1	0.039
Middle floor front connecting plate middle extension plate	zinc plating	DC54D+Z 50/50	1	0.039
Middle floor rear lower crossmember	Double-phase steel plating plate	HC420/780DPD+Z 50/50	1.2	0.047
Rear seat belt buckle right mounting reinforcing plate	Low-alloy high-strength steel electroplating plate	HC340LAD+Z 98/98	2	0.079
Middle floor rear lower crossmember reinforcing plate	Low-alloy high-strength steel electroplating plate	HC340LAD+Z 98/98	2	0.079
Rear anti-collision beam mounting plate	Low alloy high-strength steel	SAPH440	3	0.118
Rear wall left clapboard	Low-alloy high-strength steel general plate	HC260LA	1	0.039
Rear wall right clapboard	Low-alloy high-strength steel general plate	HC260LA	1	0.039
Right connecting plate of rear wall inner plate	Low-alloy high-strength steel general plate	HC260LA	1	0.039

Part Name	Material Name	Material Designation	Thickness	
			(mm)	(in)
Left reinforcing plate of rear wall panel	Low-alloy high-strength steel general plate	HC260LA	1	0.039
Right reinforcing plate of rear wall panel	Low-alloy high-strength steel general plate	HC260LA	1	0.039
Rear bumper retaining bracket	Low-alloy high-strength steel electroplating plate	HC300LAD+Z 50/50	1	0.039
Rear inner wall	Low-alloy high-strength steel general plate	HC260LA	0.7	0.028
Lower mounting bracket rear bumper	Low-carbon steel conventional plate	DC51D+Z 50/50	1	0.039
Rear outer wall	zinc plating	HC260LAD+Z 50/50	0.7	0.028
Left connecting plate of rear wall inner plate	Low-alloy high-strength steel general plate	HC260LA	1	0.039
Backdoor lock reinforcing plate	Low-alloy high-strength steel general plate	HC300LA	1.2	0.047
Reinforcing plate shock absorber RL	zinc plating	DC54D+Z 50/50	2	0.079
Front left mounting nut plate of shock absorber	zinc plating	DC56D+Z 50/50	3	0.118
Left rear mounting nut plate of shock absorber	zinc plating	DC56D+Z 50/50	3	0.118
Left rear wheel cover pillar upper supporting plate	Low-alloy high-strength steel general plate	HC260LA	1.4	0.055
Left rear wheel housing inner plate	zinc plating	DC56D+Z 50/50	0.7	0.028
Rear left mounting bracket of canister	zinc plating	HC260LAD+Z 50/50	1.2	0.047
Canister mounting support	zinc plating	HC260LAD+Z 50/50	1.2	0.047
Fixing bracket lower left rear seat backrest	Cold-rolled steel plate	DC04	1.7	0.067

Part Name	Material Name	Material Designation	Thickness	
			(mm)	(in)
Left rear wheel housing reinforcing plate	Low-carbon steel electroplating plate	DC52D+Z 50/50	1.7	0.067
Reinforcing plate shock absorber RR	zinc plating	DC54D+Z 50/50	2	0.079
Front right mounting nut plate of shock absorber	zinc plating	DC56D+Z 50/50	3	0.118
Right rear mounting nut plate of shock absorber	zinc plating	DC56D+Z 50/50	3	0.118
Right rear wheel cover pillar upper supporting plate	Low-alloy high-strength steel general plate	HC260LA	1.4	0.055
Right rear wheel housing inner plate	zinc plating	DC56D+Z 50/50	0.7	0.028
Fixing bracket lower rear right seat backrest	Cold-rolled steel plate	DC04	1.7	0.067
Channel beam nut plate	Low-alloy high-strength steel electroplating plate	HC260LAD+Z 98/98	0.75	0.030
Rear towing hook nut pipe mounting plate	Cold-rolled steel plate	HC340/590DP	1.6	0.063
Rear crossmember mounting plate	Low-alloy high-strength steel electroplating plate	HC340LAD+Z 50/50	2.5	0.098
Rear anti-intrusion crossmember	Double-phase steel conventional plate	HC550/980DP	1	0.039
Rear crossmember left suction box upper plate	Cold-rolled steel plate	HC340/590DP	1.6	0.063
Rear crossmember left suction box lower plate	Cold-rolled steel plate	HC340/590DP	1.6	0.063
Rear crossmember right suction box upper plate	Cold-rolled steel plate	HC340/590DP	1.6	0.063
Right energy-absorbing box lower plate of rear crossmember	Cold-rolled steel plate	HC340/590DP	1.6	0.063

Part Name	Material Name	Material Designation	Thickness	
			(mm)	(in)
Right mounting plate of rear crossmember	Low alloy high-strength steel	HD340LAD+Z 50/50	3.5	0.138
Panel roof outer	Bake hardened steel general plate	HC180B	0.7	0.028
Sunroof panel roof outer	Bake hardened steel general plate	HC180B	0.7	0.028
Sunroof reinforcing plate of roof	Cold-rolled steel plate	DC04	1.4	0.055
Panel roof No. 1 crossmember	Cold-rolled steel plate	HC420/780DP	1	0.039
Panel roof No. 2 crossmember	Low-alloy high-strength steel general plate	HC260LA	0.8	0.031
Panel roof No. 3 crossmember	Low-alloy high-strength steel general plate	HC260LA	0.8	0.031
Panel front roof bow	Cold-rolled steel plate	HC420/780DP	1	0.039
Panel rear roof bow	Low-alloy high-strength steel general plate	HC260LA	0.8	0.031
Rear crossmember reinforcing plate of roof	Low-alloy high-strength steel general plate	HC260LA	0.8	0.031
Left D post upper plate of inner plate	Cold-rolled steel plate	DC04	1.4	0.055
Left D-pillar inner plate lower plate	Low-alloy high-strength steel general plate	HC260LA	0.7	0.028
Left reinforcing plate of backdoor hinge	Low-alloy high-strength steel general plate	HC260LA	2	0.079
Left C-pillar inner plate	Low-alloy high-strength steel general plate	HC260LA	0.7	0.028
Left D-pillar upper reinforcing plate	Low-alloy high-strength steel general plate	HC260LA	1.2	0.047
Second-row seat retractor bracket	Low-alloy high-strength steel general plate	HC300LA	1.2	0.047

Part Name	Material Name	Material Designation	Thickness	
			(mm)	(in)
Left rear seat belt mounting plate	Low-alloy high-strength steel general plate	HC260LA	1	0.039
Left D-pillar inner plate upper reinforcing plate	Low-alloy high-strength steel general plate	HC260LA	1	0.039
Left reinforcing plate of back door electric stay	Low-alloy high-strength steel general plate	HC260LA	1.6	0.063
Right D-pillar inner plate	Low-alloy high-strength steel general plate	HC260LA	0.7	0.028
Right D-pillar inner plate upper plate	Cold-rolled steel plate	DC04	1.4	0.055
Right D-pillar inner plate lower plate	Low-alloy high-strength steel general plate	HC260LA	0.7	0.028
Right reinforcing plate of backdoor hinge	Low-alloy high-strength steel general plate	HC260LA	2	0.079
Right D-pillar upper reinforcing plate	Low-alloy high-strength steel general plate	HC260LA	1.4	0.055
Rear right seat belt mounting plate	Low-alloy high-strength steel general plate	HC260LA	1.2	0.047
Right D-pillar upper reinforcing plate	Low-alloy high-strength steel general plate	HC260LA	1	0.039
Left C-pillar upper reinforcing plate	Cold-rolled steel plate	HC340/590DP	1	0.039
Left C-pillar reinforcing plate	Low-alloy high-strength steel general plate	HC260LA	0.8	0.031
Left rear lifter supporting plate	zinc plating	HC340/590DPD+Z 50/50	1	0.039
Left C-pillar lower reinforcing plate	zinc plating	HC260LAD+Z 50/50	0.8	0.031

Part Name	Material Name	Material Designation	Thickness	
			(mm)	(in)
Left C-pillar lower supporting plate	Low-alloy high-strength steel general plate	HC260LA	0.8	0.031
Door lock buckle limit plate	Cold-rolled steel plate	DC04	1.6	0.063
Left rear door lock reinforcing plate	Low-alloy high-strength steel general plate	HC260LA	2	0.079
Right C-pillar upper reinforcing plate	Cold-rolled steel plate	HC340/590DP	1	0.039
Right C-pillar reinforcing plate	Low-alloy high-strength steel general plate	HC260LA	0.8	0.031
Right C-pillar support plate lower	Low-alloy high-strength steel general plate	HC260LA	0.8	0.031
Rear right lifter supporting plate	zinc plating	HC340/590DPD+Z 50/50	1	0.039
Reinforcing plate rear door lock catch RH	Low-alloy high-strength steel general plate	HC260LA	2	0.079
Right C-pillar lower reinforcing plate	zinc plating	HC260LAD+Z 50/50	0.8	0.031
Rear section of left rear wheel housing outer plate	zinc plating	DC56D+Z 50/50	0.7	0.028
Front section of left rear wheel cover outer plate	zinc plating	DC56D+Z 50/50	0.7	0.028
Front angle connecting plate rear wheel arch LH inner	Low-alloy high-strength steel general plate	HC260LA	1	0.039
Left rear seat fixing plate mounting bracket	Low-alloy high-strength steel general plate	HC260LA	1.2	0.047
Left fixing bracket reinforcing plate of side wall rear seat	Low-alloy high-strength steel general plate	HC260LA	1.2	0.047

Part Name	Material Name	Material Designation	Thickness	
			(mm)	(in)
Front angle connecting plate rear wheel arch LH inner	Low-alloy high-strength steel general plate	HC260LA	0.7	0.028
Rear section of right rear wheel housing outer plate	zinc plating	DC56D+Z 50/50	0.7	0.028
Front section of right rear wheel cover outer plate	zinc plating	DC56D+Z 50/50	0.7	0.028
Front angle connecting plate rear wheel arch RH inner	Low-alloy high-strength steel general plate	HC260LA	1	0.039
Right rear seat fixing plate mounting bracket	Low-alloy high-strength steel general plate	HC260LA	1.4	0.055
Right fixing bracket reinforcing plate of side wall rear seat	Low-alloy high-strength steel general plate	HC260LA	1	0.039
Front angle connecting plate rear wheel arch RH inner	Low-alloy high-strength steel general plate	HC260LA	0.7	0.028
Rear wheel cover interior trim panel mounting bracket	Cold-rolled steel plate	DC01	1	0.039
Left rear seat belt retractor bracket supporting plate	Low-alloy high-strength steel general plate	HC260LA	1.2	0.047
Rear right seat belt retractor bracket supporting plate	Low-alloy high-strength steel general plate	HC260LA	1.2	0.047
Front connecting plate of left side wall	zinc plating	HC340/590DPD+Z 50/50	1.2	0.047
Upper Mounting bracket front fender	Low-carbon steel conventional plate	DC51D+Z 50/50	1	0.039
Front upper fixing bracket left fender	Low-carbon steel conventional plate	DC51D+Z 50/50	1.4	0.055
Front left buffer block mounting bracket of engine hood	Low-carbon steel conventional plate	DC51D+Z 50/50	1	0.039

Part Name	Material Name	Material Designation	Thickness	
			(mm)	(in)
Left side wall front connecting plate reinforcing plate	zinc plating	HC340/590DPD+Z 50/50	1.2	0.047
Front lower fixing bracket left fender	Low-carbon steel conventional plate	DC51D+Z 50/50	1.6	0.063
Fixing bracket left fender	Low-carbon steel conventional plate	DC51D+Z 50/50	1.6	0.063
Left side wall outer panel	Low-carbon steel electroplating plate	DC07E+Z 45/45	0.65	0.026
Upper Mounting bracket front fender	Low-carbon steel conventional plate	DC51D+Z 50/50	1	0.039
Middle mounting bracket front fender	Low-carbon steel conventional plate	DC51D+Z 50/50	1	0.039
Rear left drip rail	zinc plating	DC56D+Z 50/50	0.8	0.031
Upper mounting plate of left taillight	Cold-rolled steel plate	DC04	0.65	0.026
Lower mounting plate of left taillight	zinc plating	DC56D+Z 50/50	0.8	0.031
Right side wall front connecting plate	zinc plating	HC340/590DPD+Z 50/50	1.2	0.047
Right fender front upper fixing bracket	Low-carbon steel conventional plate	DC51D+Z 50/50	1.4	0.055
Front right buffer block mounting bracket	Low-carbon steel conventional plate	DC51D+Z 50/50	1	0.039
Front connecting plate reinforcing plate right side wall	zinc plating	HC340/590DPD+Z 50/50	1.2	0.047
Front lower fixing bracket right fender	Low-carbon steel conventional plate	DC51D+Z 50/50	1.6	0.063
Fixing bracket right fender	Low-carbon steel conventional plate	DC51D+Z 50/50	1.6	0.063
Side wall outer panel	Low-carbon steel electroplating plate	DC07E+Z 45/45	0.65	0.026
Rear water slot right side wall	zinc plating	DC56D+Z 50/50	0.8	0.031
Right taillight upper mounting plate	Cold-rolled steel plate	DC04	0.65	0.026
Lower mounting plate of right taillight	zinc plating	DC56D+Z 50/50	0.8	0.031

Part Name	Material Name	Material Designation	Thickness	
			(mm)	(in)
Lower mounting bracket left fender	Low-carbon steel conventional plate	DC51D+Z 50/50	1	0.039
Lower mounting bracket right fender	Low-carbon steel conventional plate	DC51D+Z 50/50	1	0.039
Left A-pillar upper reinforcing plate	Thermal molded steel general plate	CR950/1300HS	1.8	0.071
Left side door ring collision reinforcing plate	Thermal molded steel aluminum and silicon plates	CR950/1300HS-AS150	1.2	0.047
Reinforcing plate cantrail LH	Cold-rolled steel plate	HC340/590DP	1.4	0.055
Upper mounting bracket left fender rear	Low-carbon steel conventional plate	DC51D+Z 50/50	1	0.039
Left A-pillar lower reinforcing plate	Thermal molded steel general plate	CR950/1300HS	1.5	0.059
Left A-pillar upper hinge reinforcing plate	Low-alloy high-strength steel general plate	HC260LA	1.2	0.047
Door stopper reinforcing plate	Low-alloy high-strength steel general plate	HC260LA	1.6	0.063
Left A-pillar lower hinge reinforcing plate	Cold-rolled steel plate	HC420/780DP	2.2	0.087
Left B-pillar reinforcing plate	Thermal molded steel aluminum and silicon plates	CR950/1300HS-AS150	1.6	0.063
Left B-pillar reinforcing plate liner	Thermal molded steel aluminum and silicon plates	CR950/1300HS-AS150	1.8	0.071
Left B-pillar lower hinge reinforcing plate	Low-alloy high-strength steel general plate	HC260LA	1	0.039
Left door sill outer plate	Thermal molded steel aluminum and silicon plates	CR950/1300HS-AS150	1.3	0.051
Front reinforcing plate of left door sill outer plate	Double-phase steel plating plate	HC420/780DPD+Z 50/50	1.2	0.047

Part Name	Material Name	Material Designation	Thickness	
			(mm)	(in)
Left door sill outer plate rear reinforcing plate	Cold-rolled steel plate	HC420/780DP	1.2	0.047
Front reinforcing plate supporting plate of door sill outer plate	Cold-rolled steel plate	HC340/590DP	1.6	0.063
Door sill outer plate rear reinforcing plate supporting plate	Cold-rolled steel plate	HC340/590DP	1.4	0.055
Right A-pillar upper reinforcing plate	Thermal molded steel general plate	CR950/1300HS	1.8	0.071
Right side wall door ring collision reinforcing plate	Thermal molded steel aluminum and silicon plates	CR950/1300HS-AS150	1.2	0.047
Reinforcing plate cantrail RH	Cold-rolled steel plate	HC340/590DP	1.4	0.055
Upper mounting bracket right fender rear	Low-carbon steel conventional plate	DC51D+Z 50/50	1	0.039
Right A-pillar lower reinforcing plate	Thermal molded steel general plate	CR950/1300HS	1.5	0.059
Right front wheel housing outer plate supporting plate	zinc plating	HC340/590DPD+Z 50/50	1.2	0.047
Right A-pillar lower hinge reinforcing plate	Low-alloy high-strength steel general plate	HC260LA	1.2	0.047
Right A-pillar lower hinge reinforcing plate	Cold-rolled steel plate	HC420/780DP	2.2	0.087
Right B-pillar reinforcing plate	Thermal molded steel aluminum and silicon plates	CR950/1300HS-AS150	1.6	0.063
Right B-pillar reinforcing plate liner	Thermal molded steel aluminum and silicon plates	CR950/1300HS-AS150	1.8	0.071
Right B-pillar lower hinge reinforcing plate	Low-alloy high-strength steel general plate	HC260LA	1	0.039

Part Name	Material Name	Material Designation	Thickness	
			(mm)	(in)
Right door sill outer plate	Thermal molded steel aluminum and silicon plates	CR950/1300HS-AS150	1.3	0.051
Front reinforcing plate of right door sill outer plate	Double-phase steel plating plate	HC420/780DPD+Z 50/50	1.2	0.047
Right door sill outer plate rear reinforcing plate	Cold-rolled steel plate	HC420/780DP	1.2	0.047
Inner panel of left B-pillar	Low-alloy high-strength steel general plate	HC260LA	1.2	0.047
Front-row seat belt lower mounting point reinforcing plate	Cold-rolled steel plate	HC340/590DP	1.4	0.055
Front left seat belt retractor fixing plate	Low-alloy high-strength steel general plate	HC300LA	2	0.079
Left cantrail inner panel	Thermal molded steel general plate	CR950/1300HS	1.6	0.063
Left connecting plate of front crossmember of roof	Cold-rolled steel plate	HC420/780DP	1.2	0.047
Inner panel of right B-pillar	Low-alloy high-strength steel general plate	HC260LA	1.2	0.047
Front-row right seat belt retractor fixing plate	Low-alloy high-strength steel general plate	HC300LA	2	0.079
Right cantrail inner panel	Thermal molded steel general plate	CR950/1300HS	1.6	0.063
Right connecting plate of front crossmember of roof	Cold-rolled steel plate	HC420/780DP	1.2	0.047
Safety handle mounting bracket	Low-alloy high-strength steel general plate	HC260LA	1.2	0.047
Reinforcing plate of front wall middle channel	zinc plating	DC54D+Z 50/50	2	0.079

Part Name	Material Name	Material Designation	Thickness	
			(mm)	(in)
Lower front reinforcing plate of FL wheel arch	zinc plating	HC260LAD+Z 50/50	1	0.039
Left mounting plate of front anti-collision beam	6 series aluminum molding	EN AW 6063 T6	6	0.236
Right mounting plate of front anti-collision beam	6 series aluminum molding	EN AW 6063 T6	6	0.236
Front anti-intrusion beam	7 series aluminum molding	EN AW 7003	5	0.000
Nut pipe	6 series aluminum molding	EN AW 6063 T6	0.5	0.020
Front anti-intrusion beam left crash box lower panel	6 series aluminum molding	EN AW 6063 T6	1.7	0.067
Front anti-intrusion beam right crash box upper panel	6 series aluminum molding	EN AW 6063 T6	1.7	0.067
Radiator left mounting nut plate	6 series aluminum molding	EN AW 6063 T6	7	0.276
Radiator right mounting nut plate	6 series aluminum molding	EN AW 6063 T6	7	0.276
Left mounting bracket of middle channel of instrument panel (7DCT)	Low-alloy high-strength steel general plate	HC260LA	1	0.039
Right mounting bracket of middle channel (7DCT) of instrument panel	Low-alloy high-strength steel general plate	HC260LA	1	0.039
RL spring seat supporting plate	Low-alloy high-strength steel electroplating plate	HC260LAD+Z 98/98	2	0.079
RR spring seat supporting plate	Low-alloy high-strength steel electroplating plate	HC260LAD+Z 98/98	2	0.079
Middle floor front connecting plate middle extension plate	Thermal stamping aluminum and silicon coating steel plate	VCS 5730,4-HS950Y1300T-BORON	1	0.039

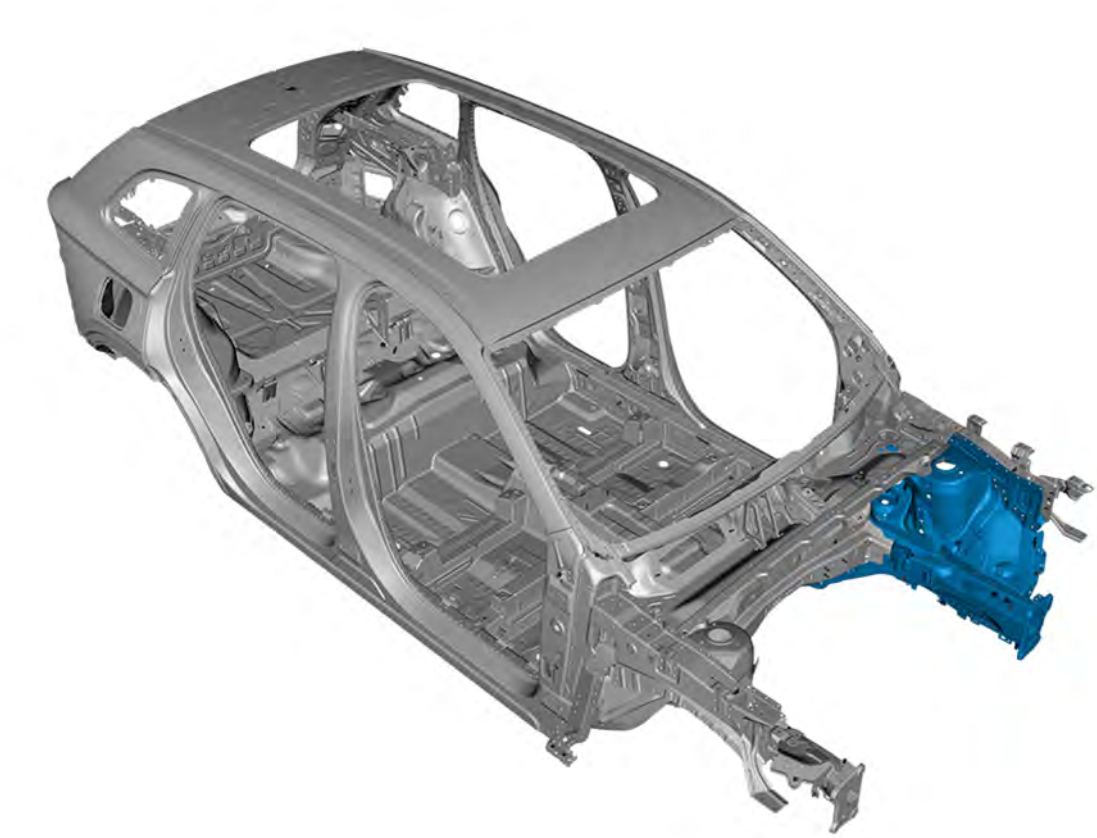
Part Name	Material Name	Material Designation	Thickness	
			(mm)	(in)
Middle floor front connecting plate extension bracket	zinc plating	DC54D+Z 50/50	1	0.039
Fuel tank mounting fixing plate	Cold-rolled steel plate	DC04	1.5	0.059
Left front connecting plate of upper cross beam rear floor	Low-carbon steel conventional plate	DC06	2	0.079
Front right connecting plate of upper cross beam rear floor	Low-carbon steel conventional plate	DC06	2	0.079
Left rear connecting plate of upper cross beam rear floor	Low-carbon steel conventional plate	DC06	1	0.039
Right rear connecting plate of upper cross beam rear floor	Low-carbon steel conventional plate	DC06	1	0.039
Right bracket outside child seat	Low-alloy high-strength steel general plate	HC260LA	1.8	0.071
Battery tray strap	Cold-rolled steel plate	DC03	2	0.079
Left mounting bracket of 12V battery	Cold-rolled steel plate	DC03	1	0.039
Right connecting plate of rear wall inner plate	Low-alloy high-strength steel general plate	HC260LA	0.8	0.031
Reinforcing plate shock absorber RL	Cold-rolled steel plate	DC04	2	0.079
Reinforcing plate shock absorber RR	Cold-rolled steel plate	DC04	2	0.079
Left C-pillar lower shield mounting bracket	Low-alloy high-strength steel general plate	HC260LA	1.2	0.047

4.2 Body structure (replacement of body panels)

4.2.1 Removal of assembly-left side member c/w wheel arch

4.2.1.1 Removal of assembly-left side member c/w wheel arch

Positions of components in the vehicle

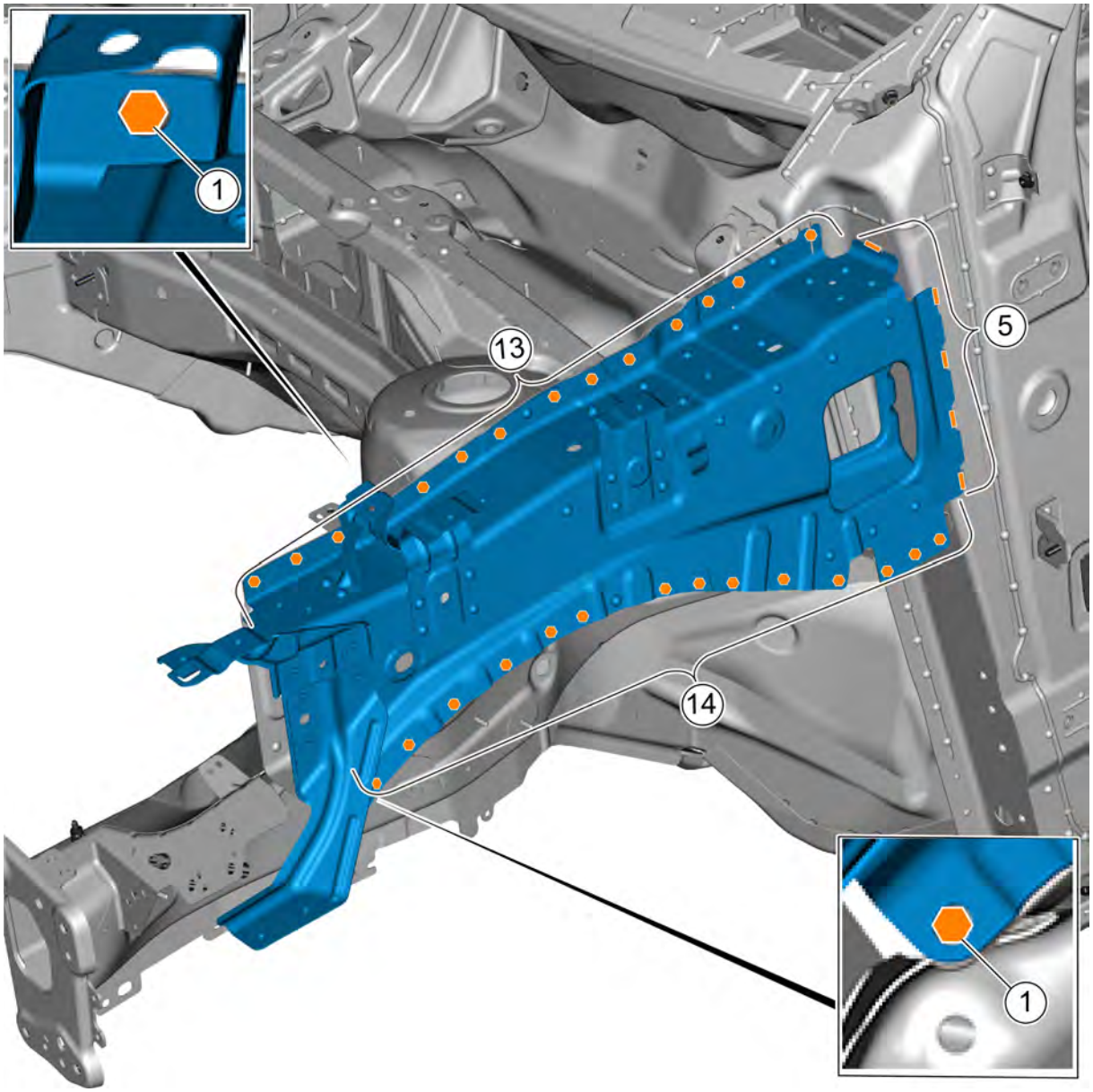


Component Disassembly

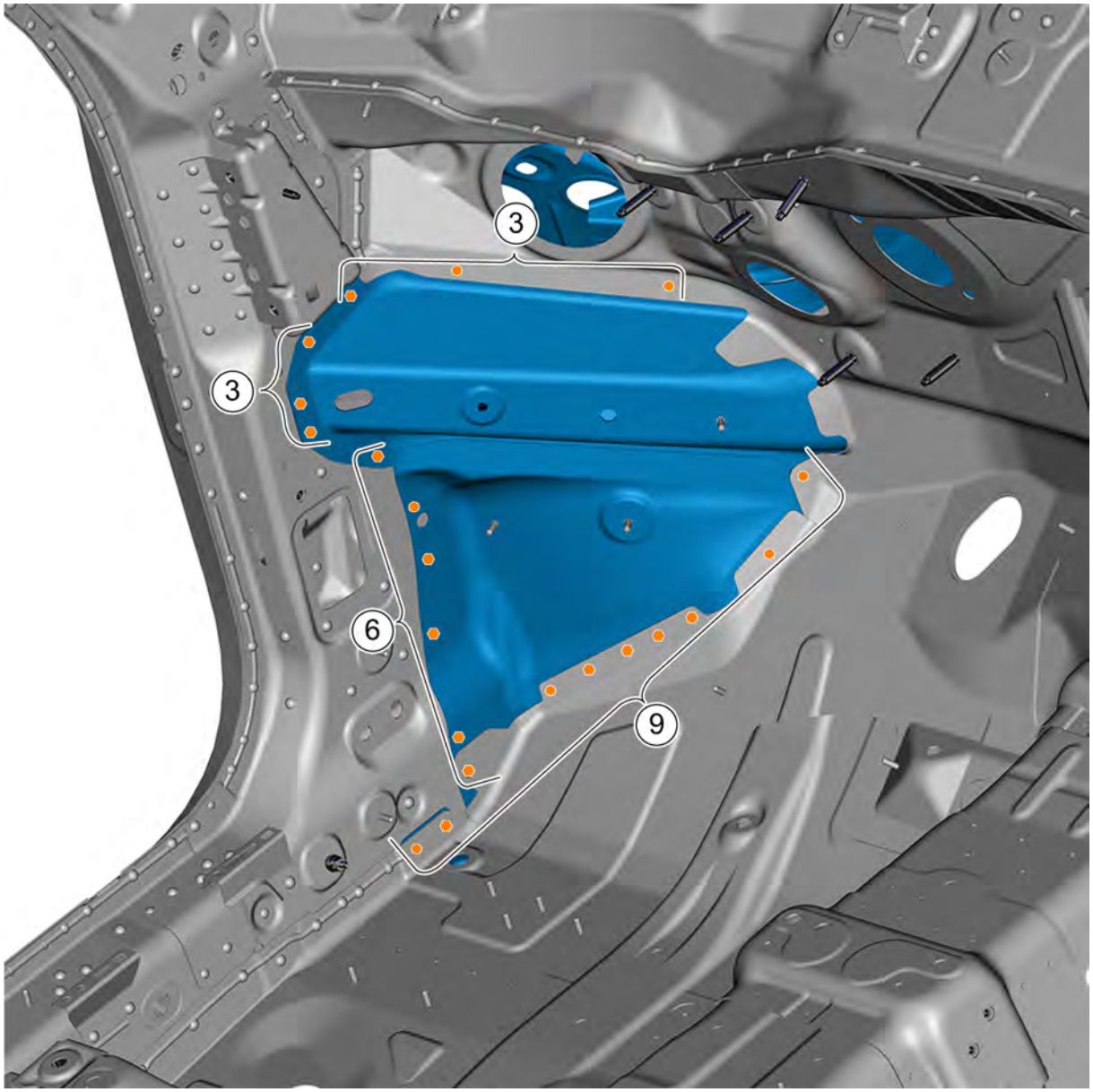
Caution

The removal method is the same for the left and right sides.

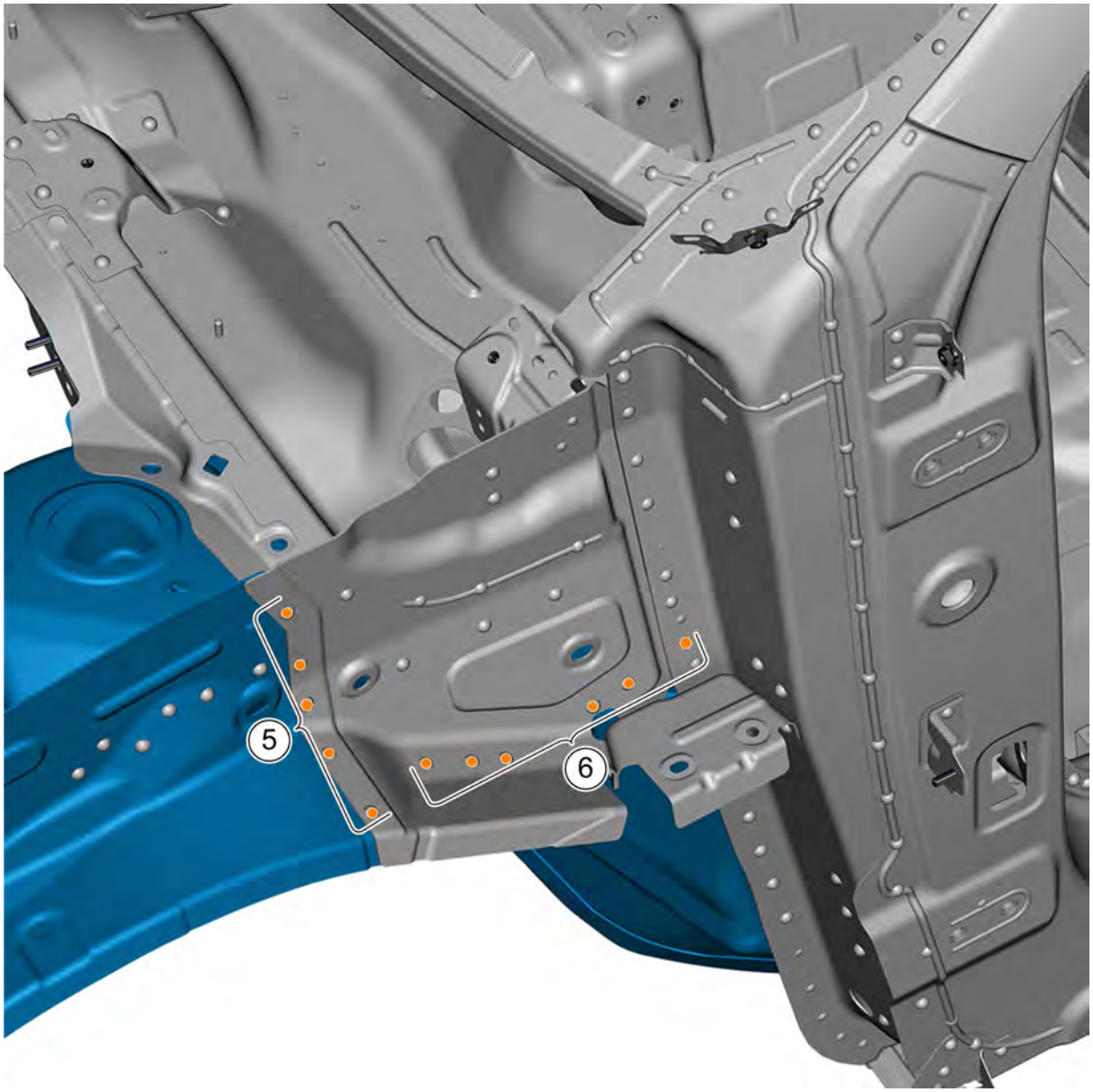
1. After drilling holes at the welding spots shown in the figure below, remove the fixing points between the front connecting plate assembly of side wall LH and the left side member pulley cover assembly and the side wall.



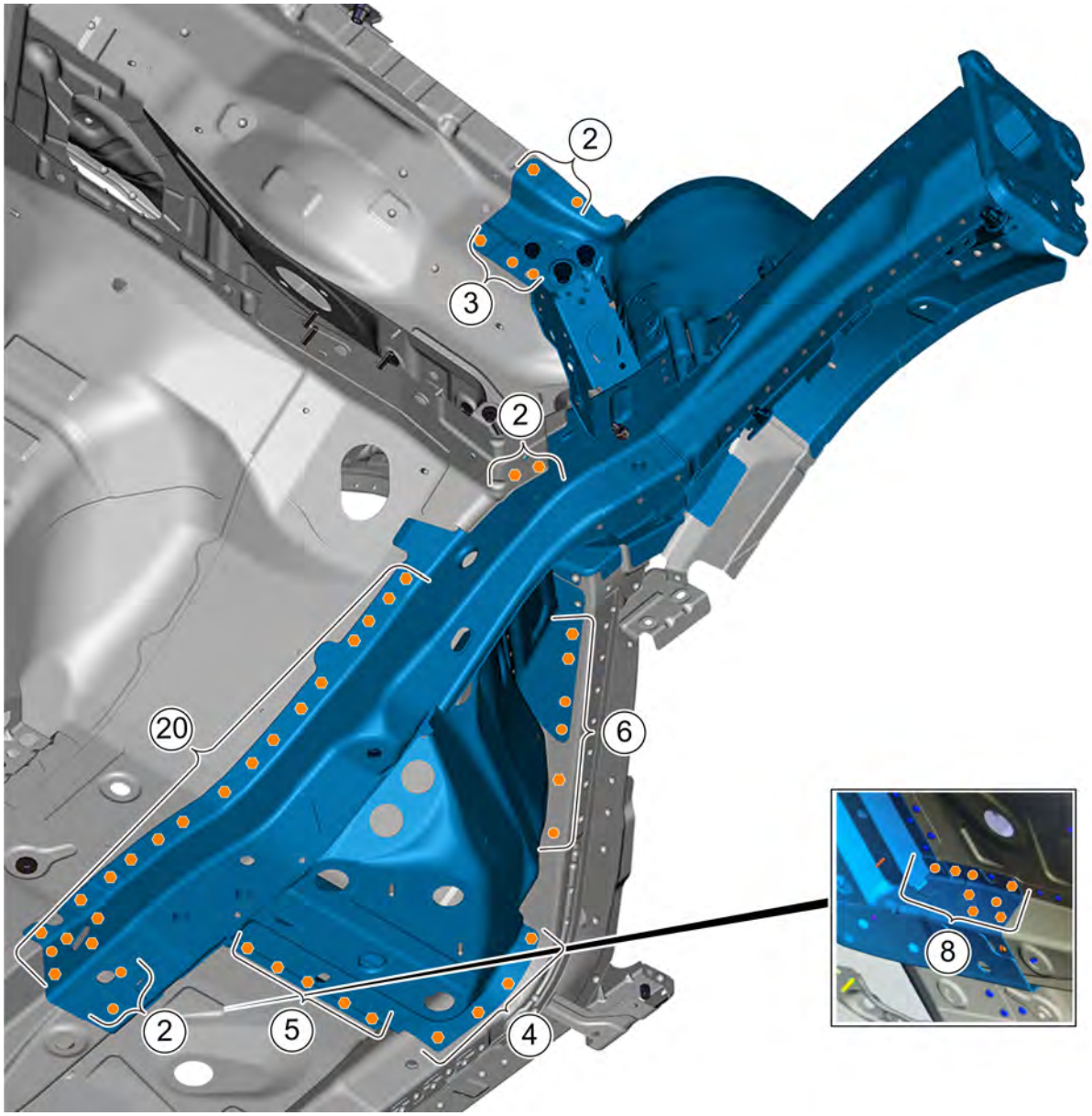
2. After drilling holes at the welding spots shown in the figure below, remove the fixing points between the left side member pulley cover assembly and the left front A-pillar inner plate assembly & the front wall panel.



3. After drilling holes at the welding spots shown in the figure below, remove the fixing points between the left side member pulley cover assembly and the A-pillar inner plate assembly.



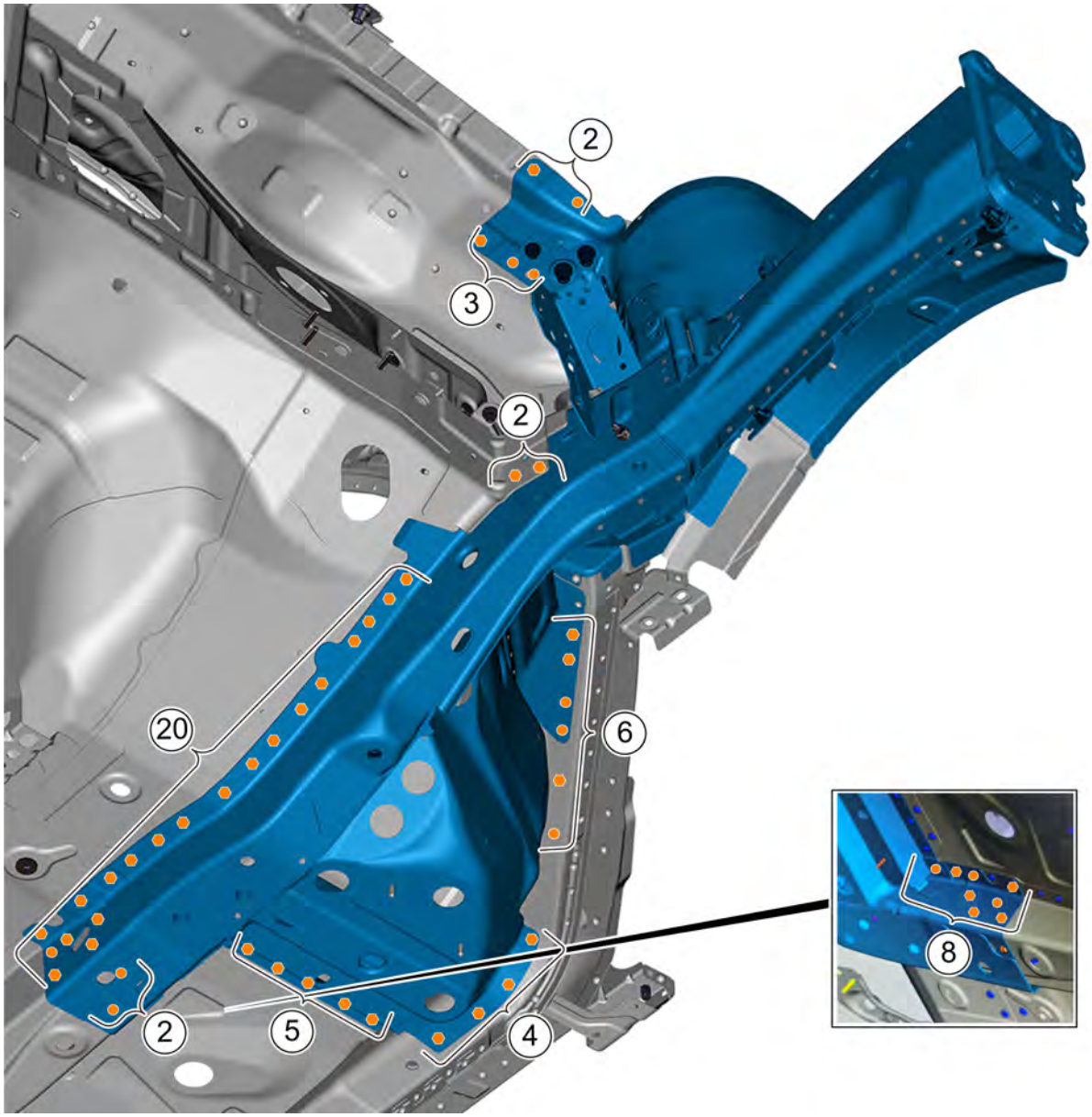
4. After drilling holes at the welding spots shown in the figure below, remove the fixing points between the left side member pulley cover assembly and the A-pillar inner plate assembly and the front wall plate assembly.



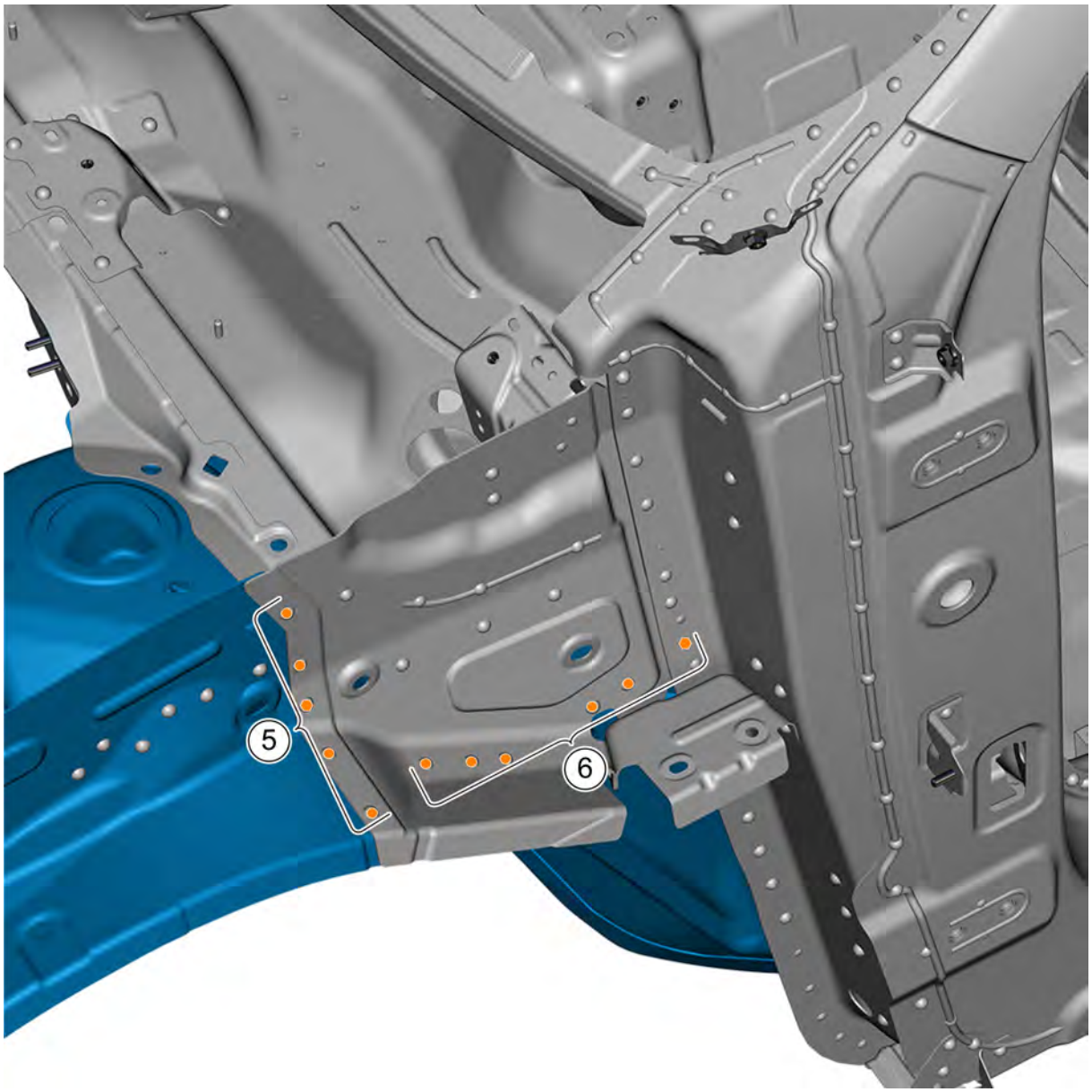
4.2.2 Mounting of assembly-left side member c/w wheel arch

4.2.2.1 Mounting of assembly-left side member c/w wheel arch

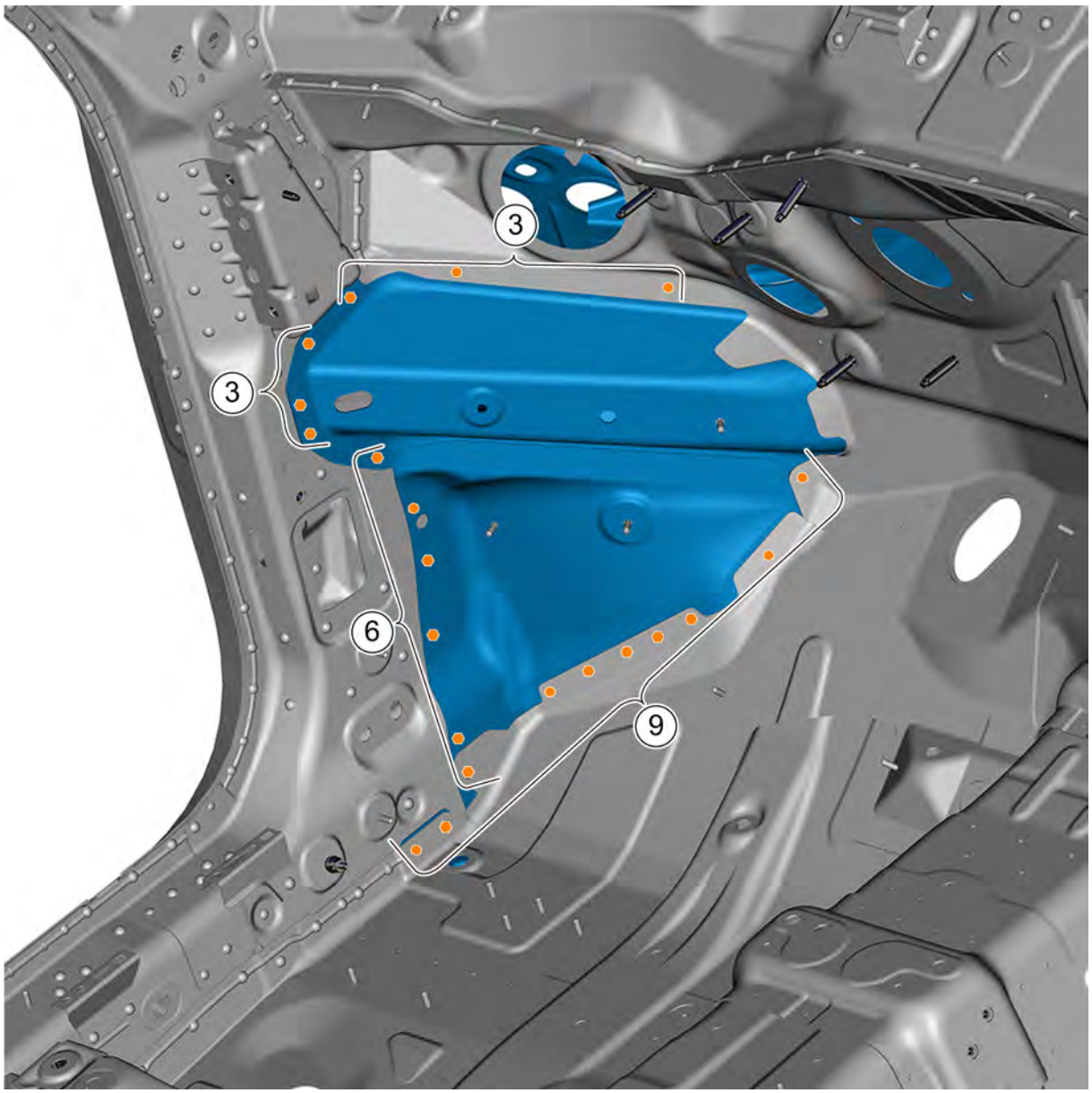
1. When mounting new parts, measure and adjust the body as needed to meet standard dimensions.
2. After temporarily mounting new parts, make sure that the related parts are properly connected.
3. Mount the fixing points between the left side member pulley cover assembly and the A-pillar inner plate assembly and the front wall panel assembly.



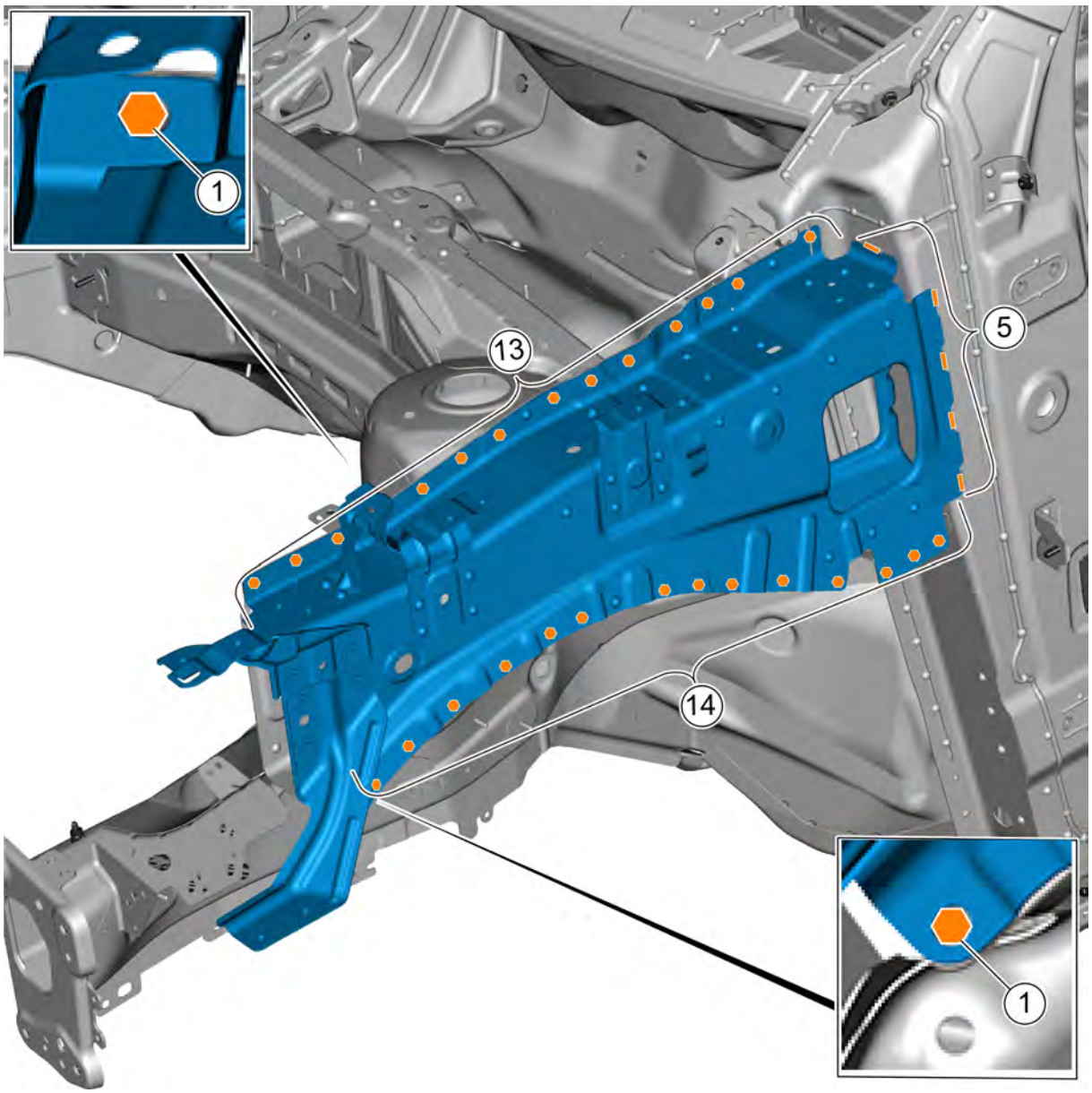
4. Mount the fixing points between the left side member pulley cover assembly and the A-pillar inner plate assembly.



5. Mount the fixing points between the left side member pulley cover assembly and the left front A-pillar inner plate assembly with the front wall panel.



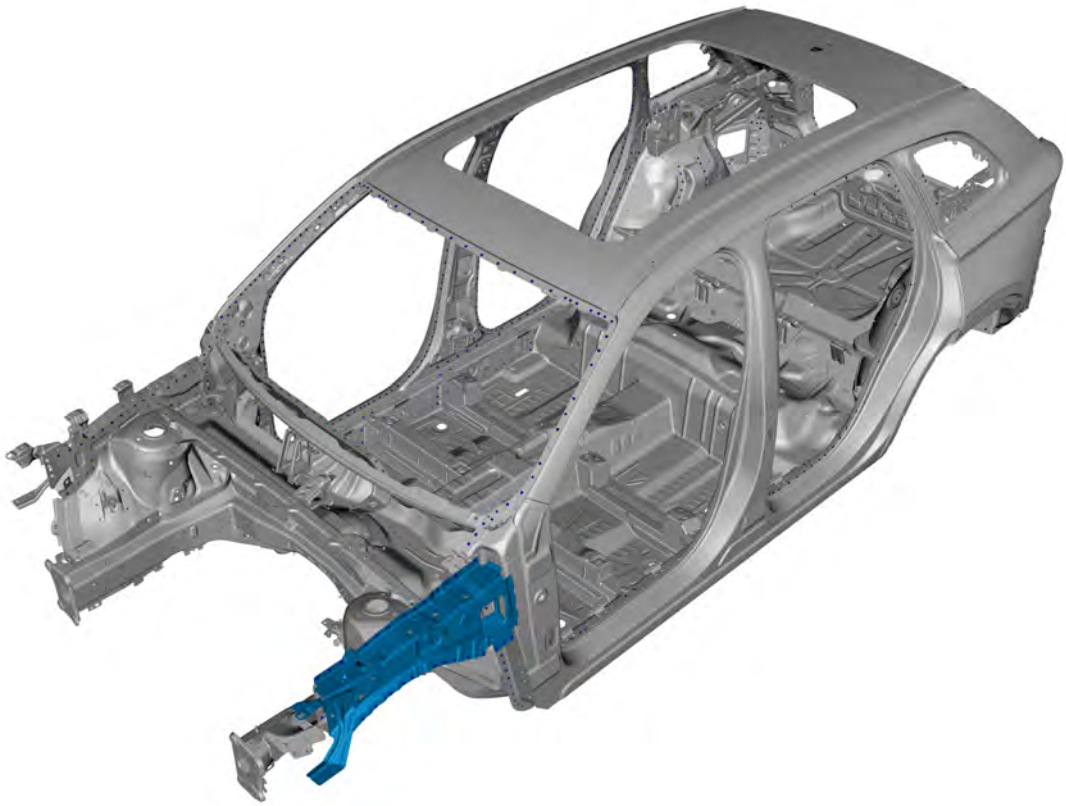
6. Mount the fixing points between the front connecting plate assembly of the left side wall and the left side member pulley cover assembly and the side wall.



4.2.3 Removal of front connecting plate assembly of left side wall

4.2.3.1 Removal of front connecting plate assembly of left side wall

Positions of components in the vehicle

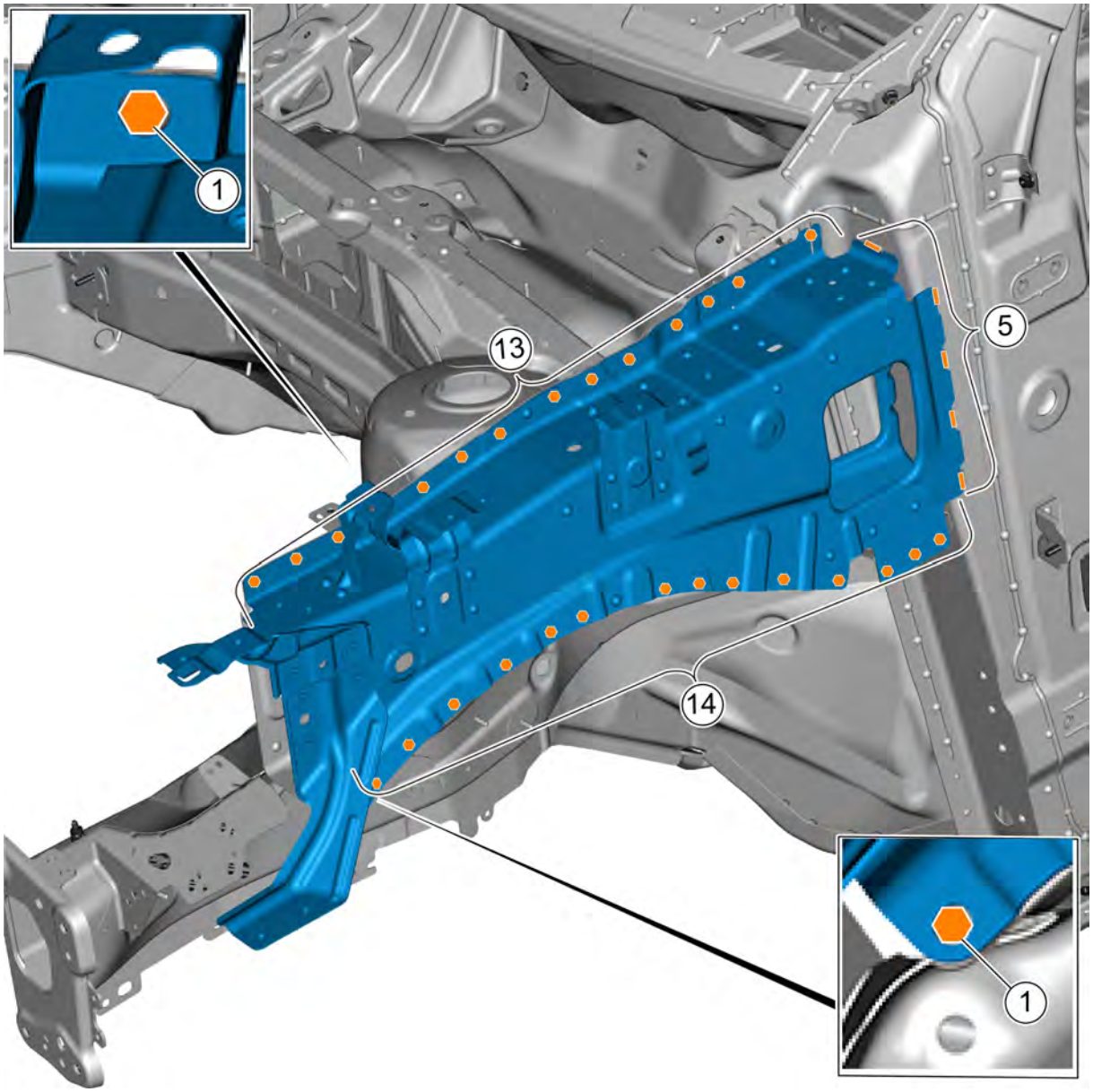


Component Disassembly

Caution

The removal method is the same for the left and right sides.

1. After drilling holes at the welding spots shown in the figure below, remove the fixing points between the front connecting plate assembly of side wall LH and the left side member pulley cover assembly and the side wall.



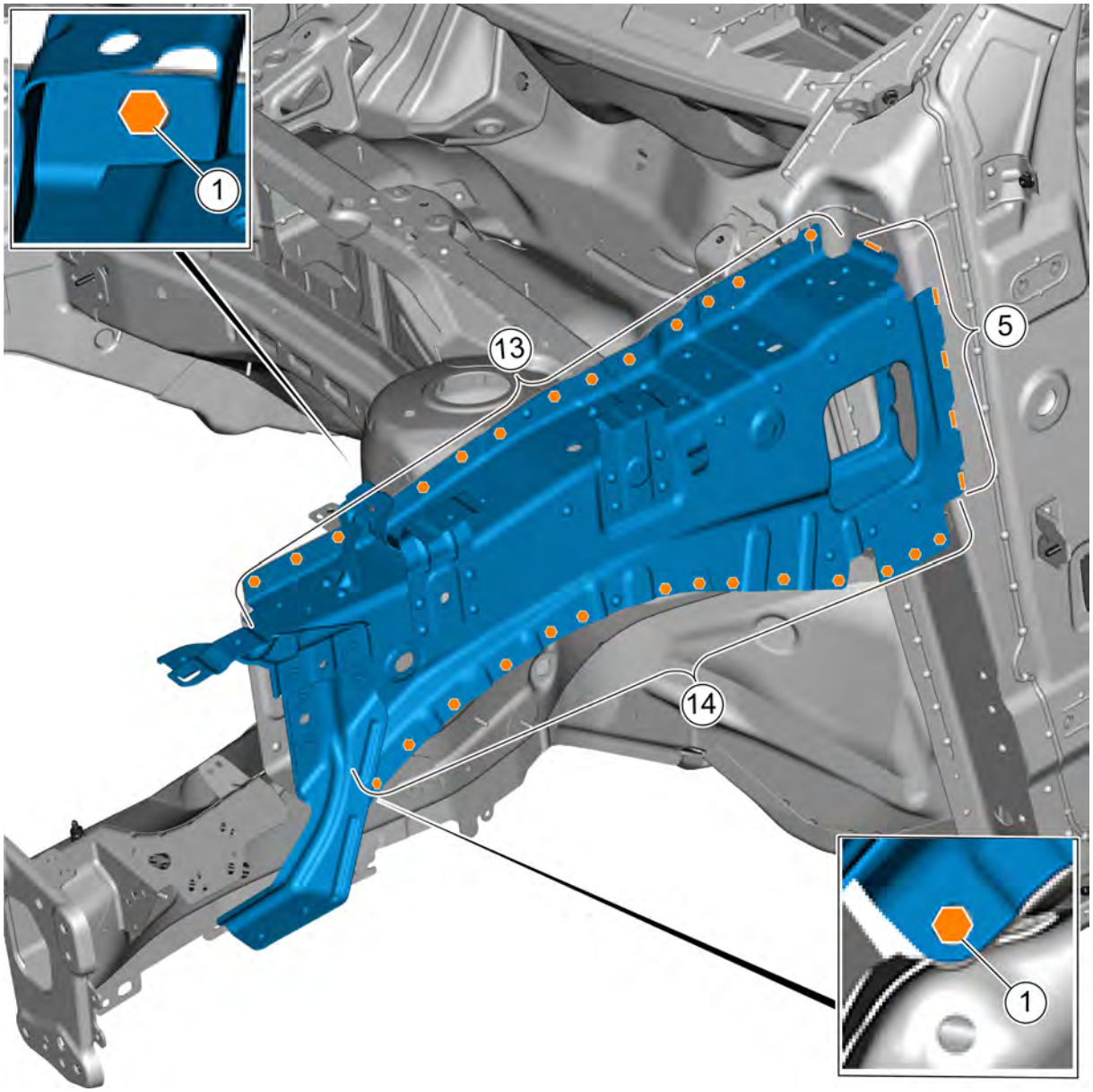
4.2.4 Mounting of front connecting plate assembly of left side wall

4.2.4.1 Mounting of front connecting plate assembly of left side wall

1. When mounting new parts, measure and adjust the body as needed to meet standard dimensions.

2. After temporarily mounting new parts, make sure that the related parts are properly connected.

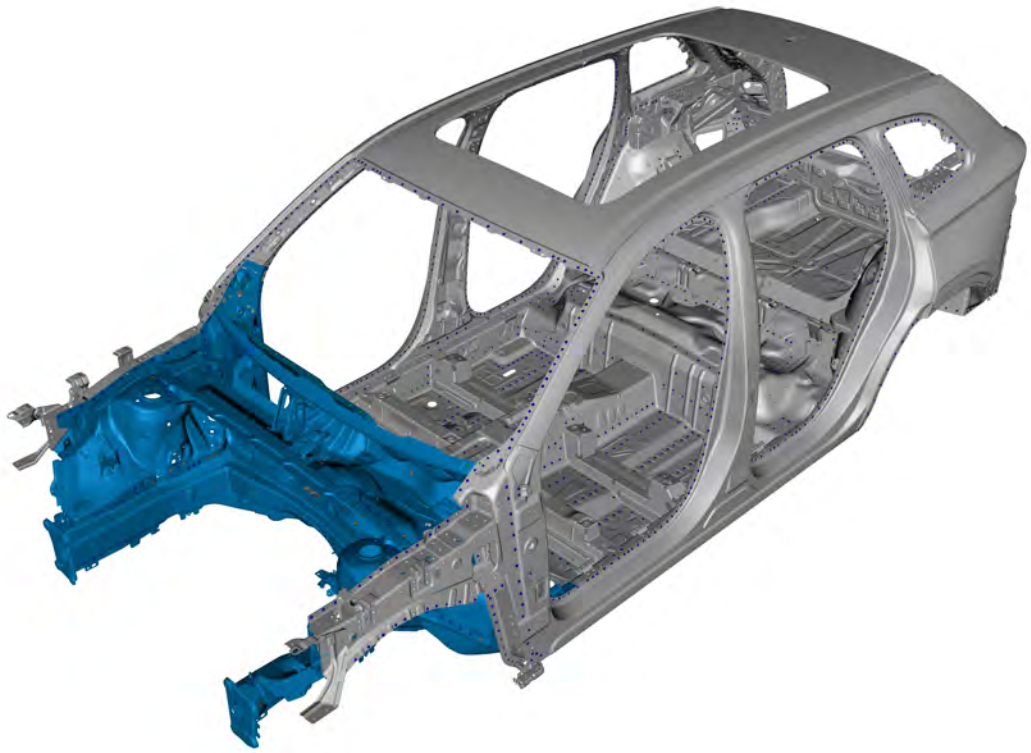
3. Mount the fixing points between the front connecting plate assembly of the left side wall and the left side member pulley cover assembly and the side wall.



4.2.5 Removal of engine compartment assembly

4.2.5.1 Removal of engine compartment assembly

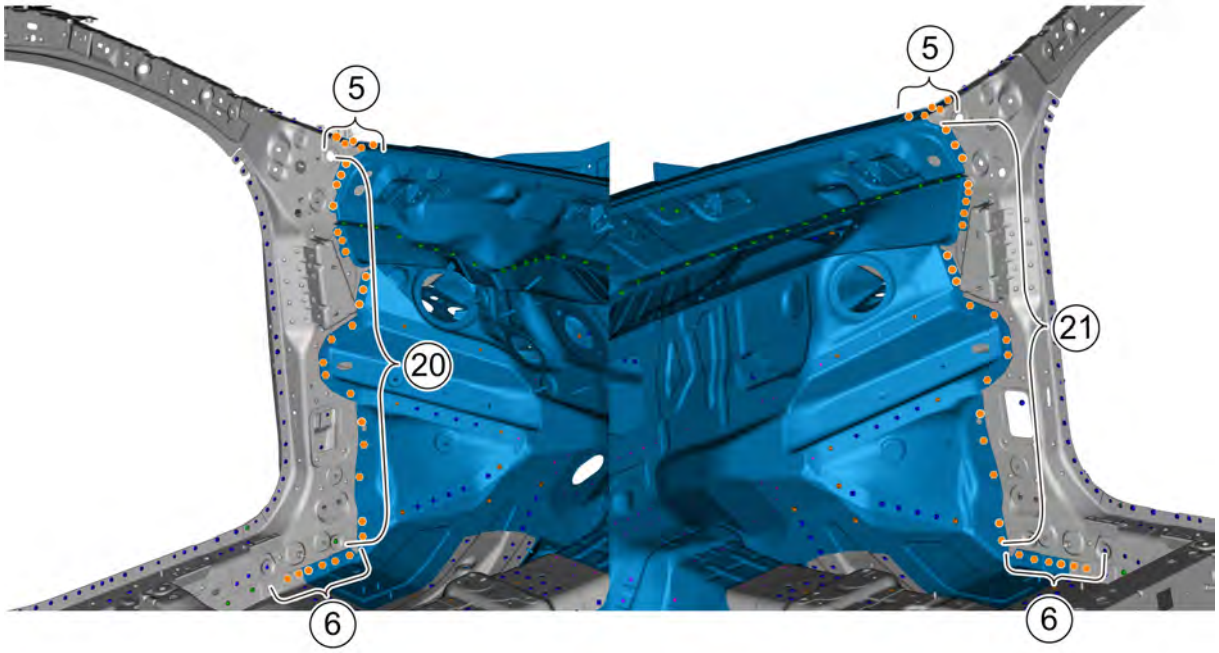
Positions of components in the vehicle



Component Disassembly

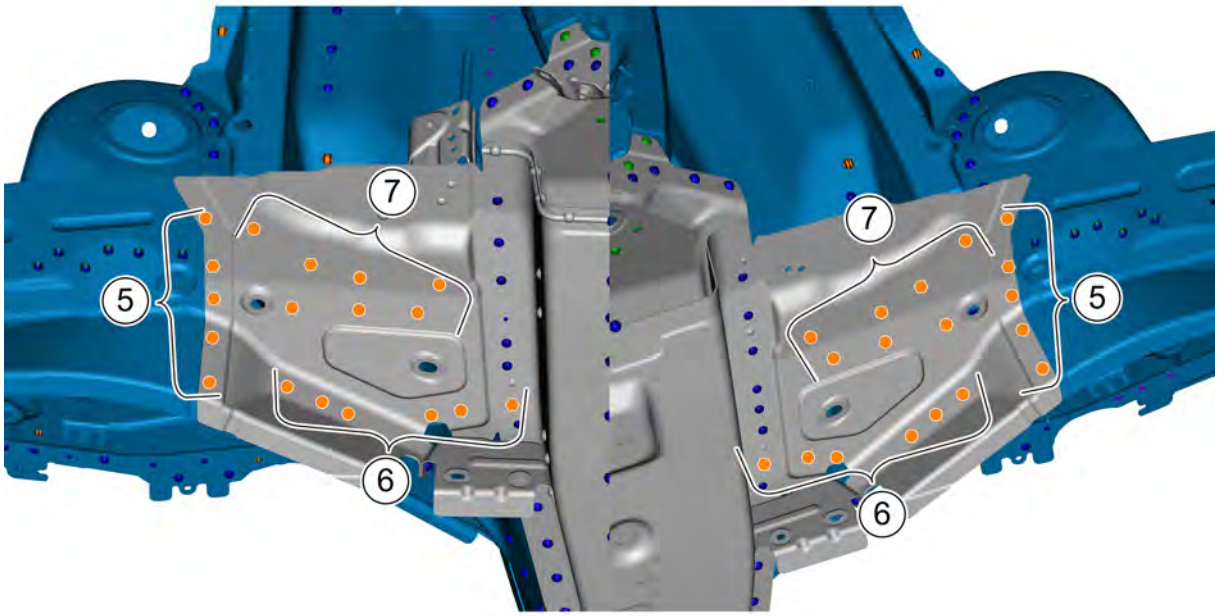
1. Remove front connecting plate assembly of the left and right side walls, refer to Removal of front connecting plate assembly of the left side walls.

2. After drilling holes at the welding spots shown in the figure below, remove the fixing points in the vehicle between the engine compartment and the left and right A-pillar inner panel assemblies.

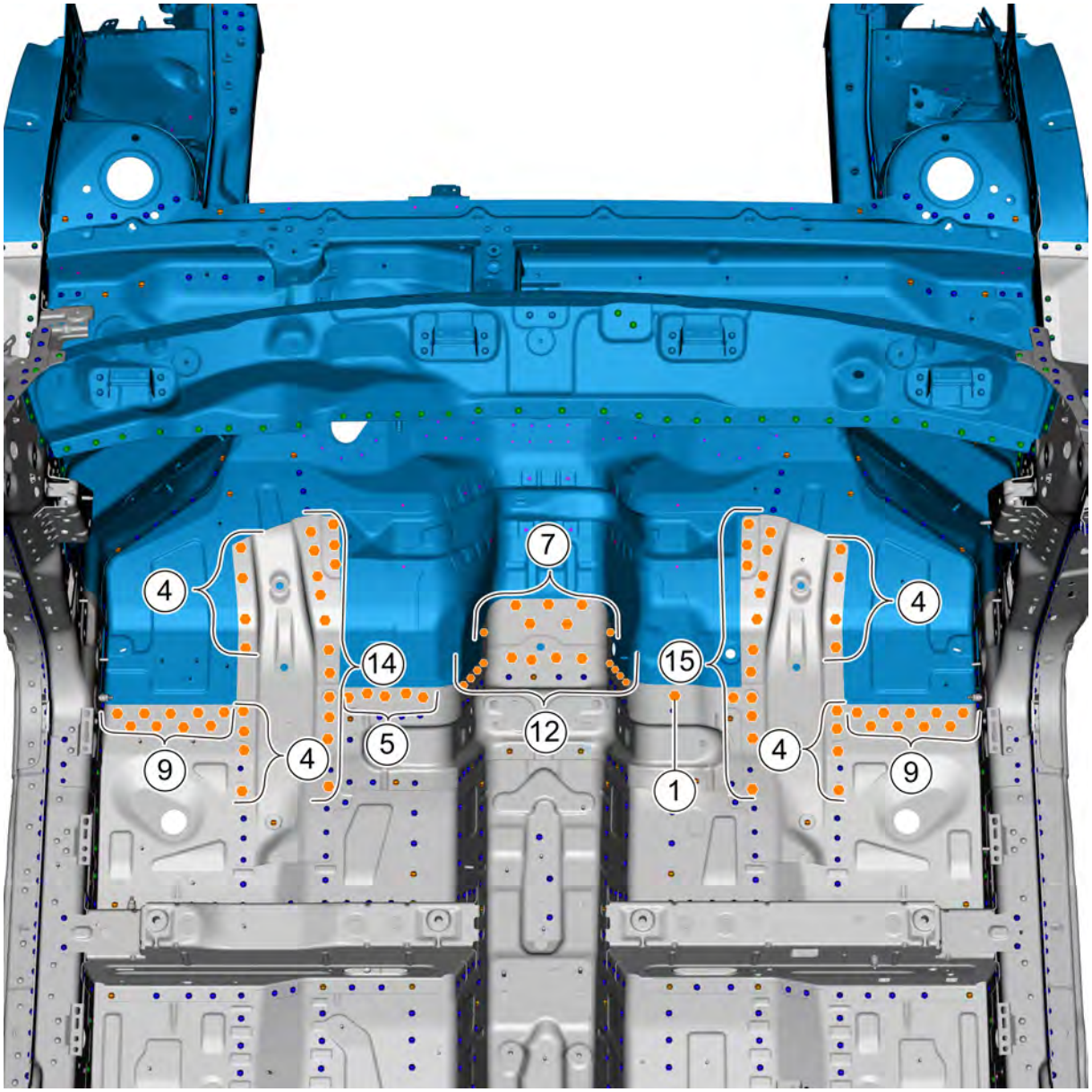


3. After drilling holes at the welding spots shown in the figure below, remove the fixing points outside the vehicle between the engine compartment and the lower part of the inner plate assembly of the left and right A-pillars.

4. After drilling holes at the welding spots shown in the figure below, remove the external fixing points between the engine compartment and the left and right A-pillar inner panel assemblies.



5. After drilling holes at the welding spots shown in the figure below, remove the fixing points between the engine compartment and the front floor assembly middle.



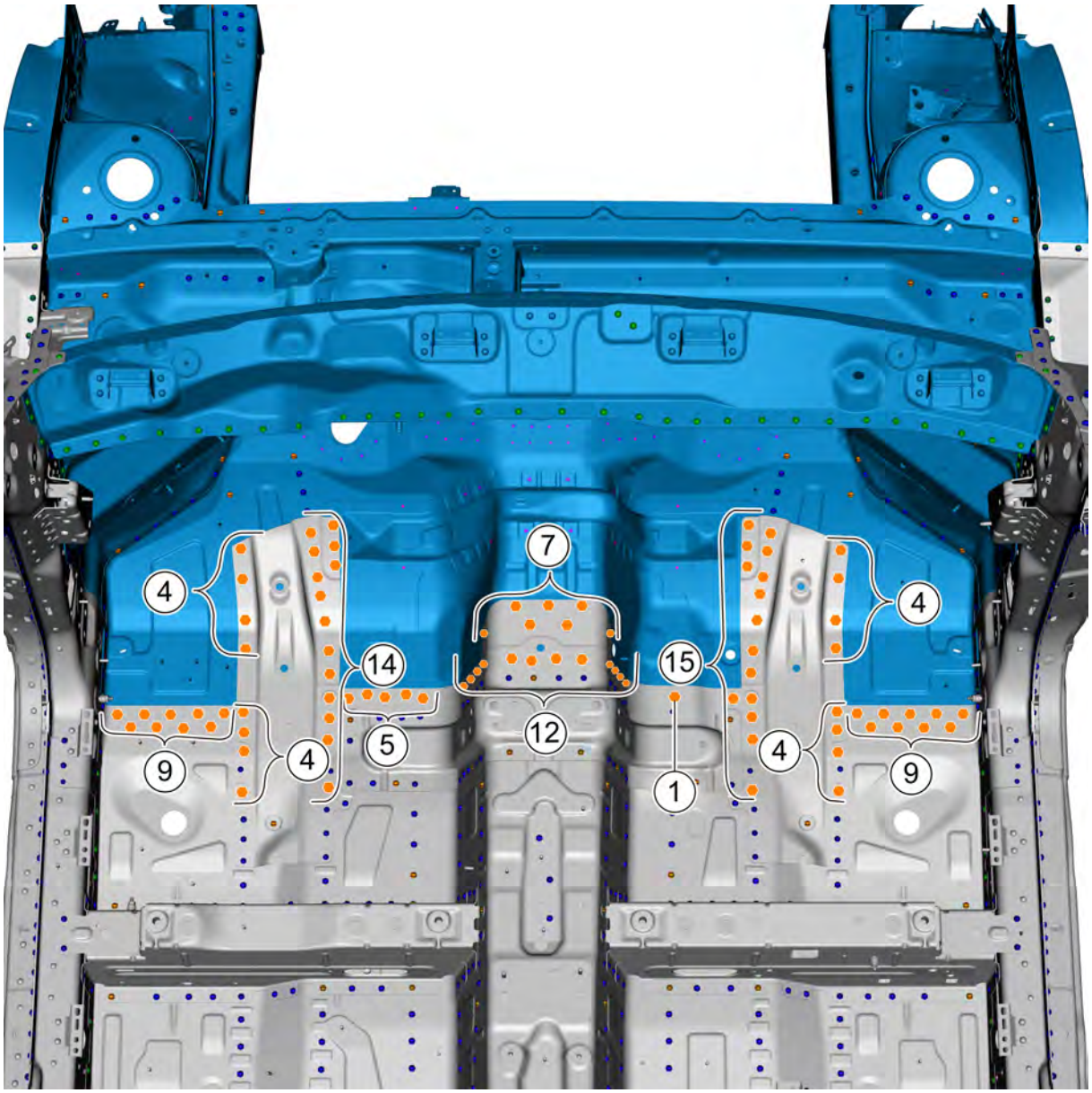
4.2.6 Mounting of engine compartment assembly

4.2.6.1 Mounting of engine compartment assembly

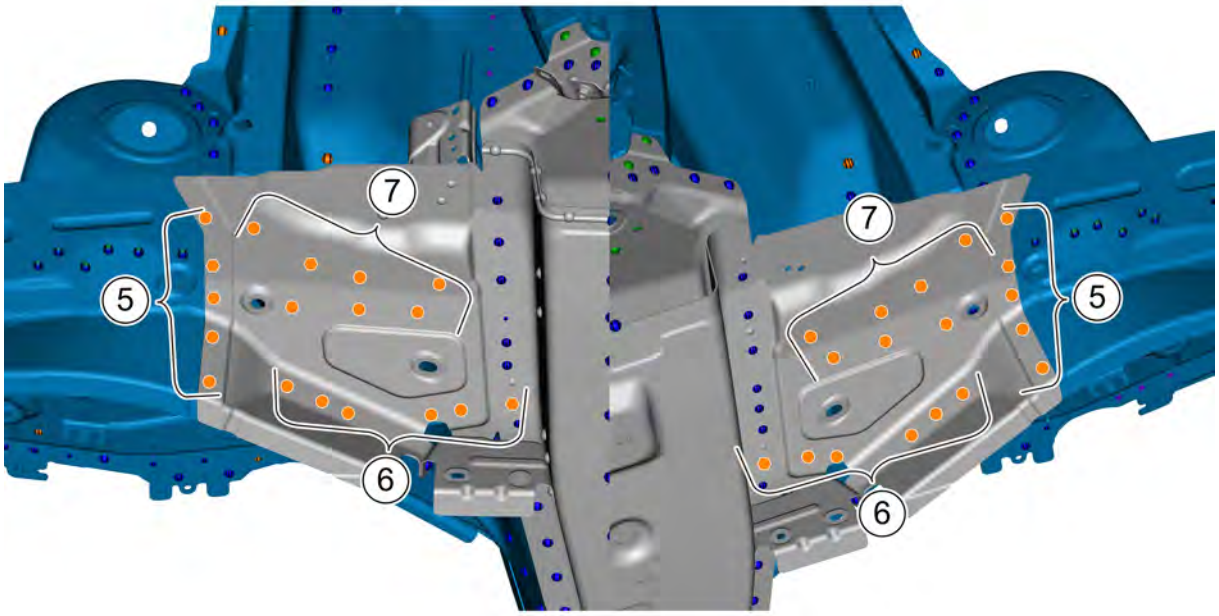
1. When mounting new parts, measure and adjust the body as needed to meet standard dimensions.

2. After temporarily mounting new parts, make sure that the related parts are properly connected.

3. Mount the fixing points between the engine compartment assembly and the front floor assembly middle.

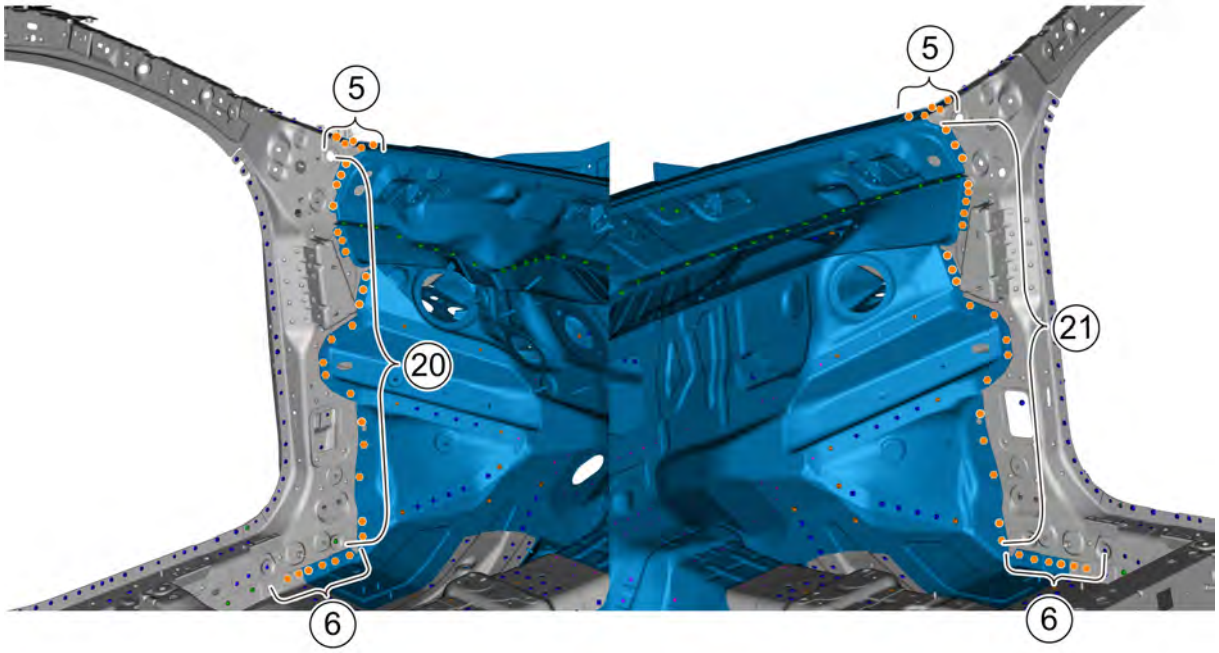


4. Mount the exterior fixing points between the engine compartment assembly and the left and right A-pillar inner plate assemblies.



5. Mount the lower fixing points outside the vehicle between the engine compartment assembly and the left and right A-pillar inner plate assemblies.

6. Mount the internal fixing points between the engine compartment assembly and the left and right A-pillar inner plate assemblies.



7. Mount the front connecting plate assembly of the left and right side walls.

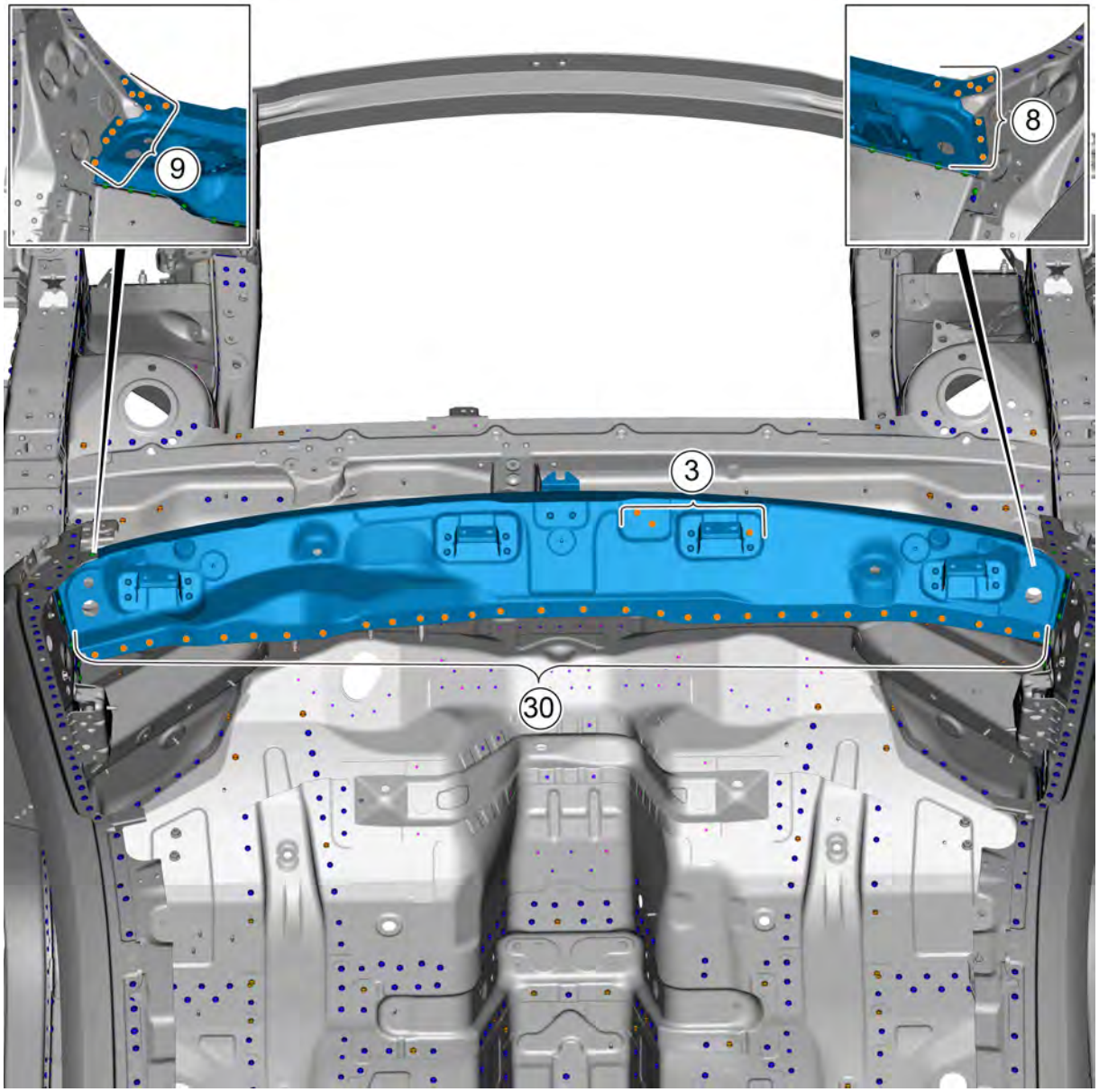
4.2.7 Removal of upper assembly of front wall

4.2.7.1 Removal of upper assembly of front wall

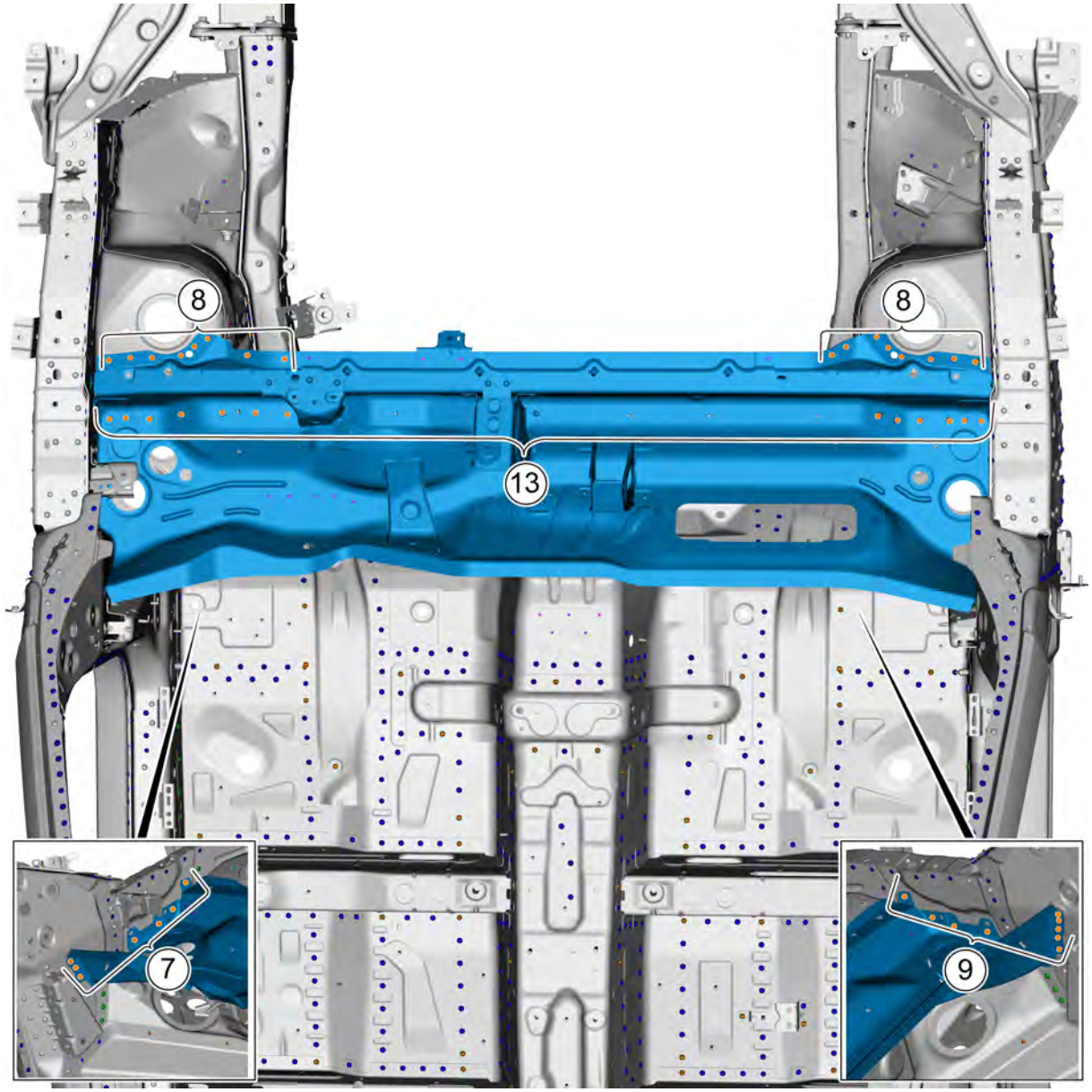
Positions of components in the vehicle

Component Disassembly

1. After drilling holes at the welding spots shown in the figure below, remove the fixing points between the upper assembly of front wall and the upper panel assembly of the upper part of front wall.



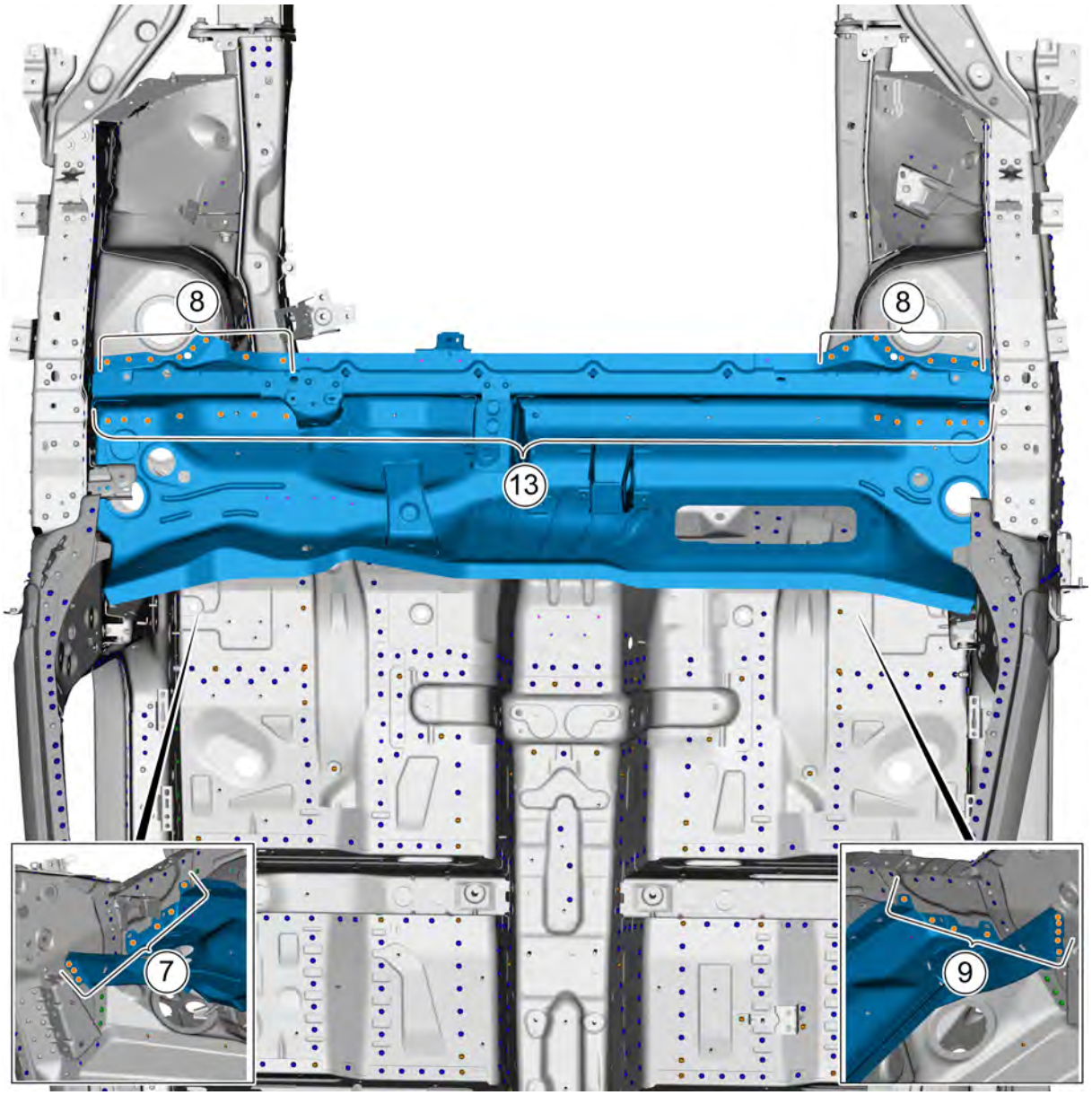
2. After drilling holes at the welding spots shown in the figure below, remove the fixing points between the upper assembly of front wall and the lower main plate assembly of front wall and the inner plate assembly of A-pillar.



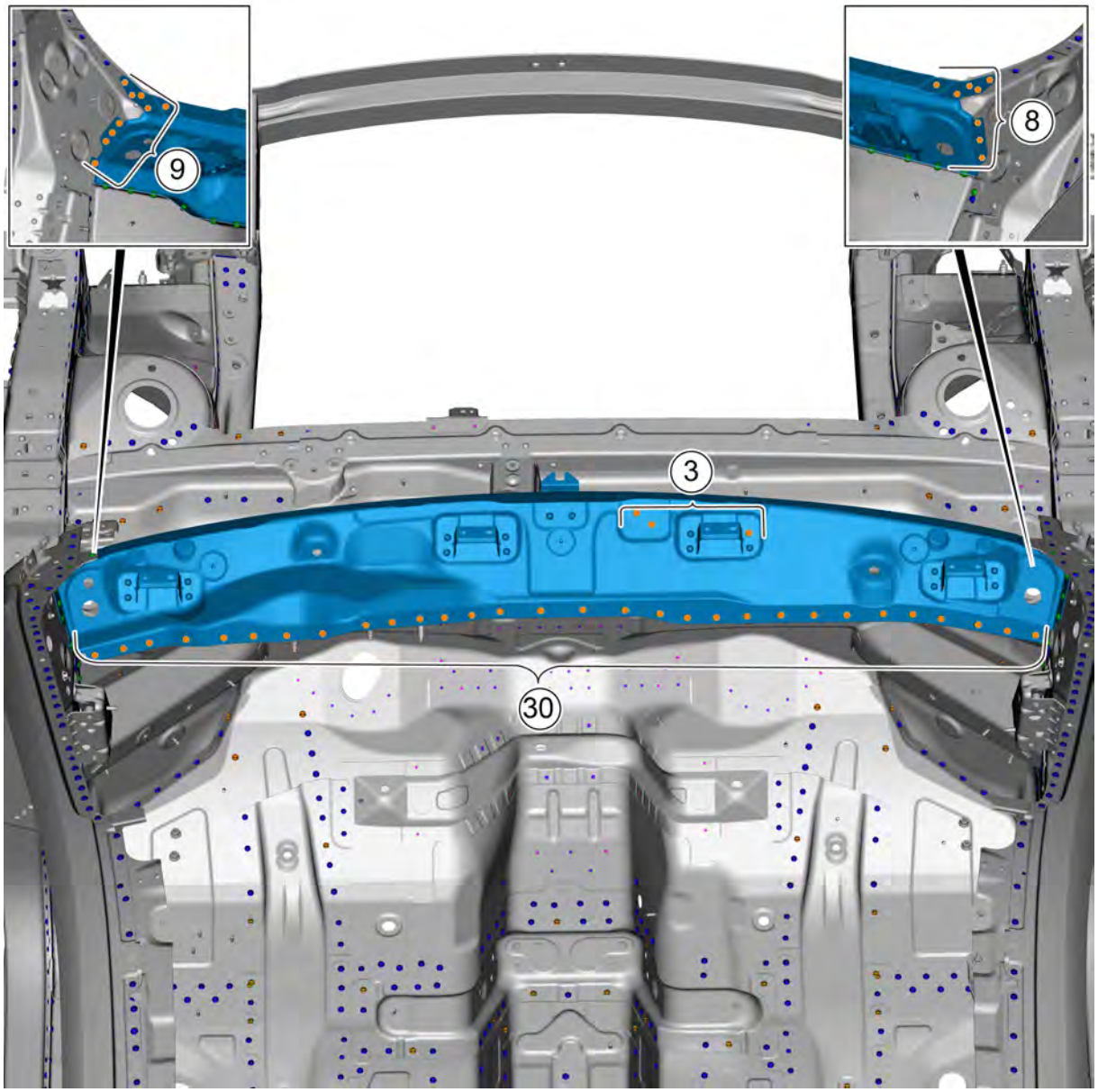
4.2.8 Mounting of upper assembly of front wall

4.2.8.1 Mounting of upper assembly of front wall

1. When mounting new parts, measure and adjust the body as needed to meet standard dimensions.
2. After temporarily mounting new parts, make sure that the related parts are properly connected.
3. Mount the fixing points between the upper assembly of the front wall and the lower main plate assembly of the front wall and the inner plate assembly of the A-pillar.



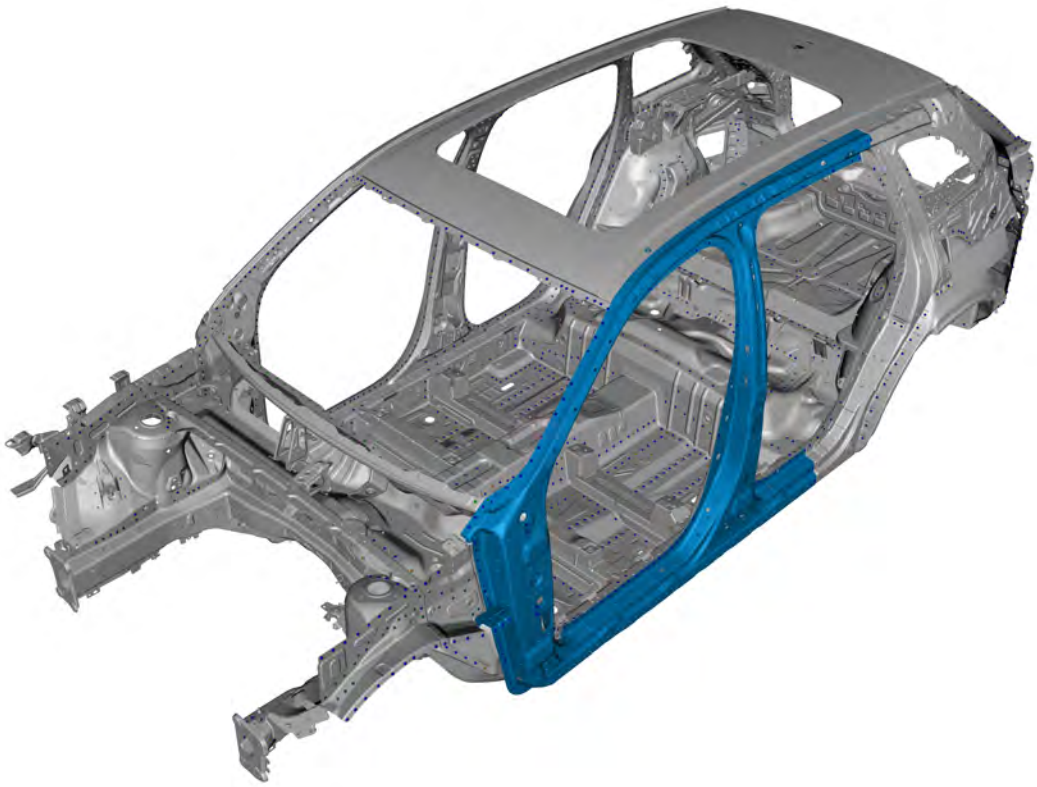
4. Mount the fixing points between the assembly-upper front wall and the assembly-upper front panel upper front wall.



4.2.9 Removal of front reinforcing plate assembly of left side wall

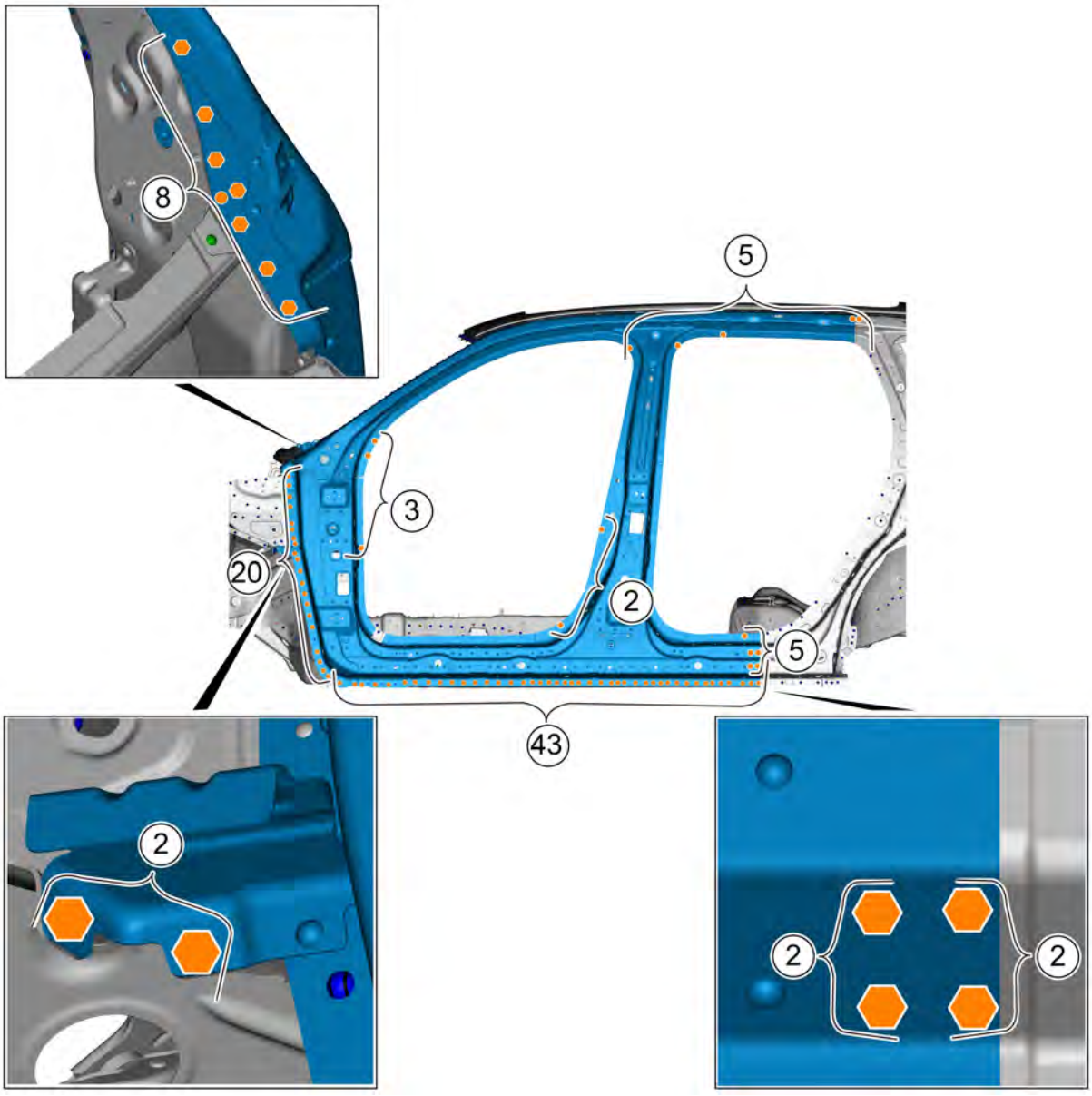
4.2.9.1 Removal of front reinforcing plate assembly of left side wall

Positions of components in the vehicle



Component Disassembly

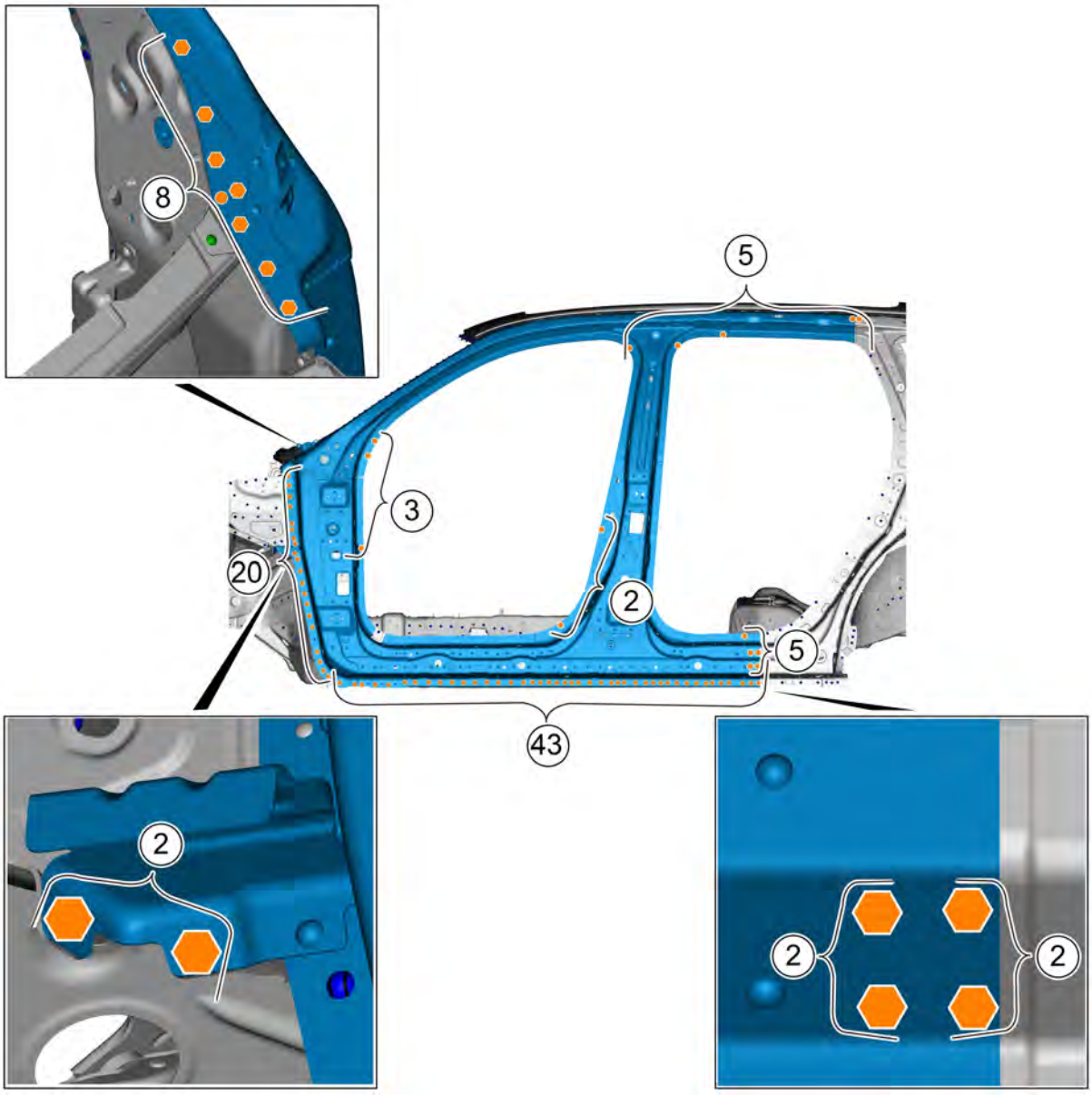
1. Remove the front connecting plate assembly of the left side wall. Refer to Removal of front connecting plate assembly of the left side wall.
2. Remove the left side wall outer panel. Refer to Removal of left side wall outer panel.
3. After drilling holes at the welding spots shown in the figure below, remove the fixing points between the front reinforcing plate assembly of the left side wall and the left A-pillar inner plate assembly and the left door sill inner plate assembly.



4.2.10 Mounting of front reinforcing plate assembly of left side wall

4.2.10.1 Mounting of front reinforcing plate assembly of left side wall

1. When mounting new parts, measure and adjust the body as needed to meet standard dimensions.
2. After temporarily mounting new parts, make sure that the related parts are properly connected.
3. Mount the fixing points between the front reinforcing plate assembly of the left side wall and the left A-pillar inner plate assembly and the left door sill inner plate assembly.



4. Mount the left body side outer panel.
5. Mount the front connecting plate assembly of the left side wall.

4.2.11 Removal of left side wall assembly

4.2.11.1 Removal of left side wall assembly

Positions of components in the vehicle

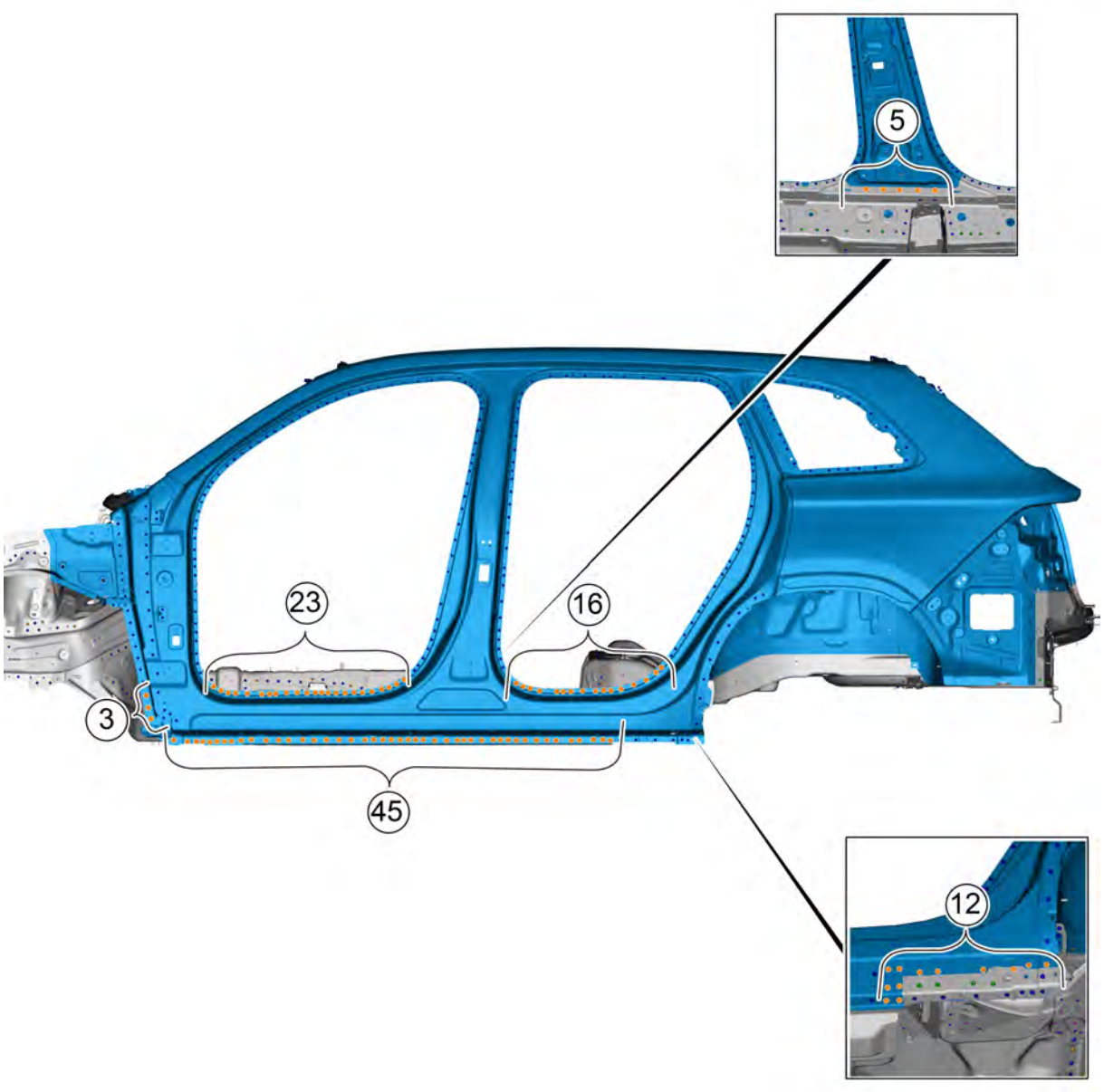
Component Disassembly

Caution

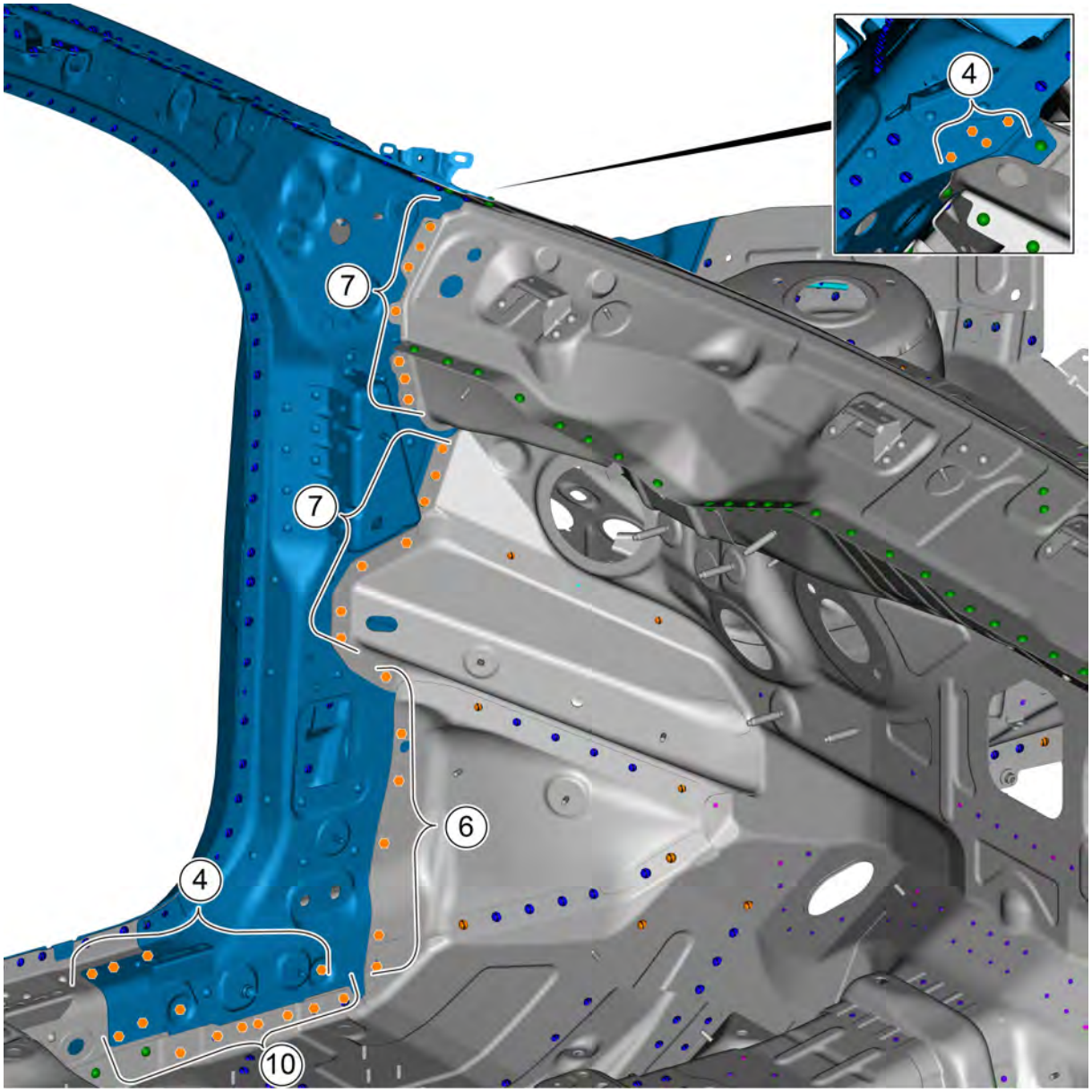
The removal method is the same for the left and right sides.

1. Remove the front connecting plate assembly of the left side wall. Refer to Removal of front connecting plate assembly of the left side wall.

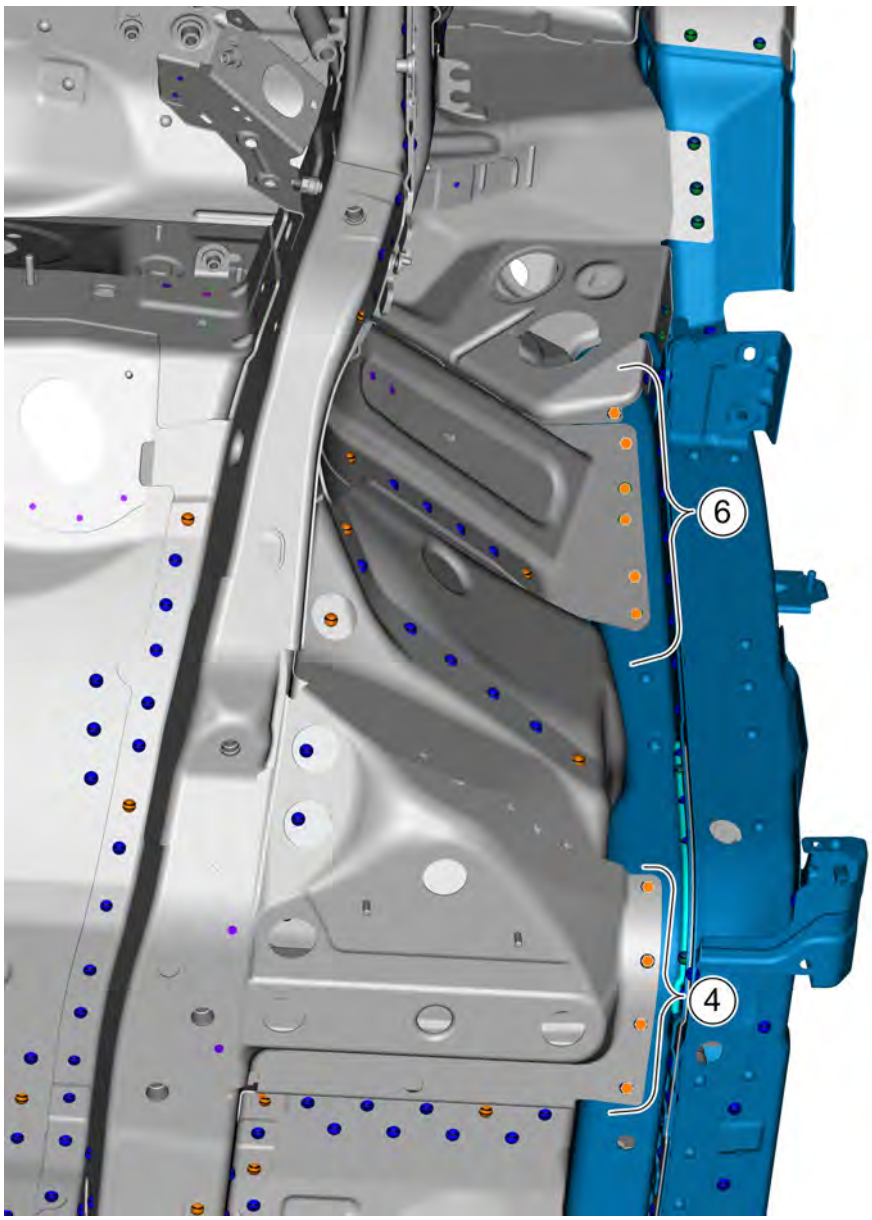
2. After drilling holes at the welding spots shown in the figure below, remove the fixing points between the left side wall assembly and the front floor assembly.



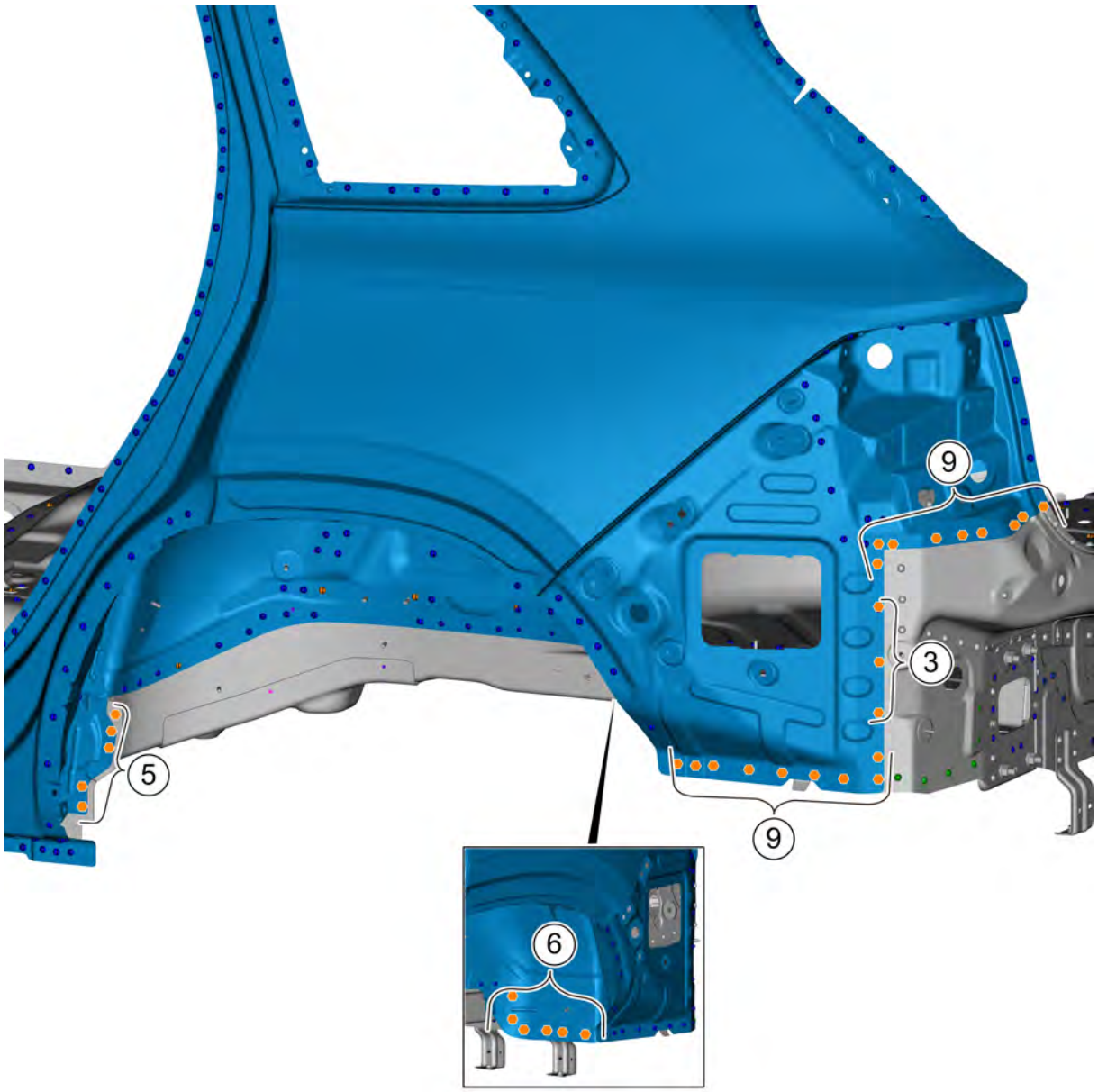
3. After drilling holes at the welding spots shown in the figure below, remove the fixing points between the left side wall assembly and the front floor assembly.



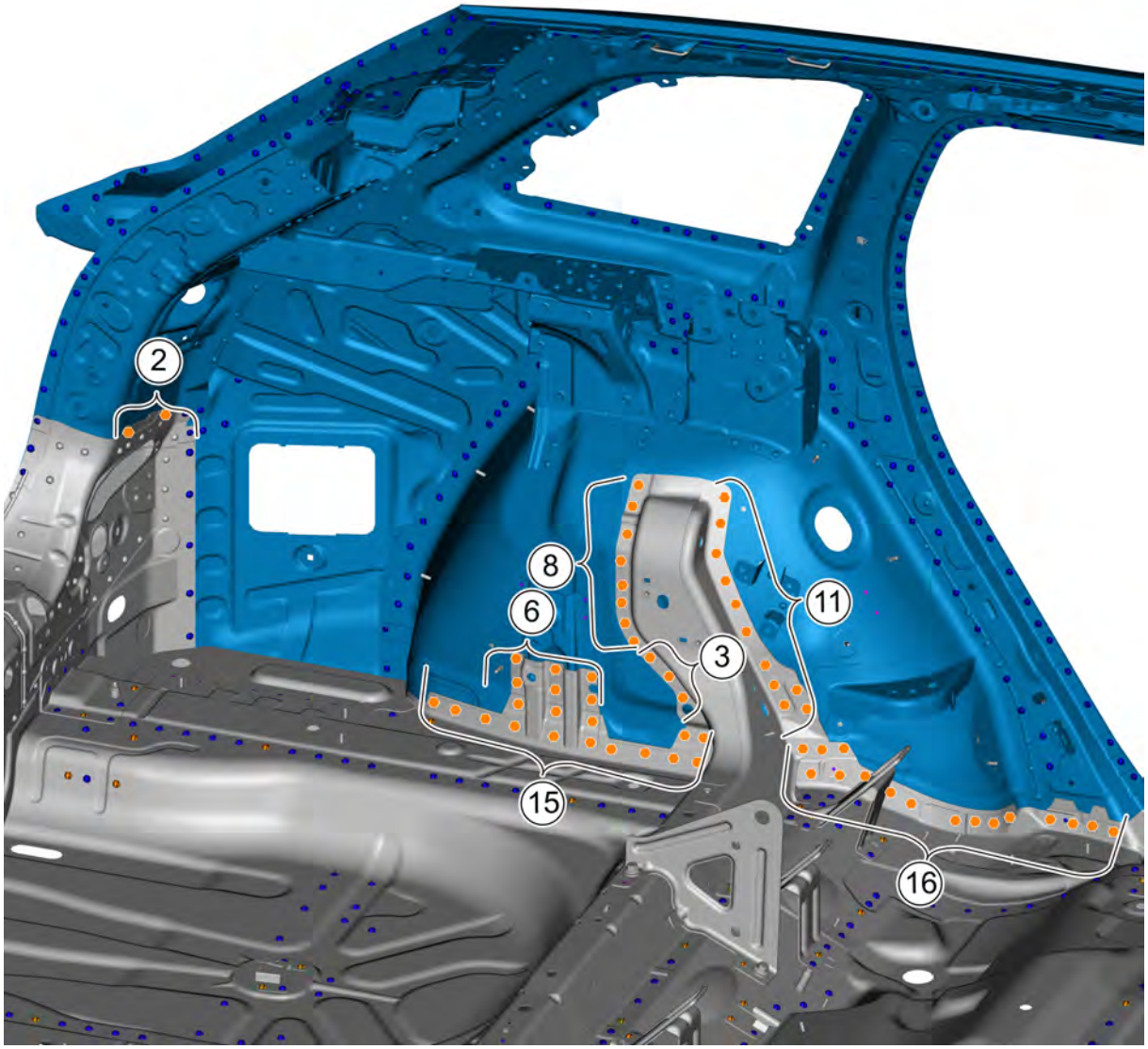
4. After drilling holes at the welding spots shown in the figure below, remove the fixing points between the left side wall assembly and the left side member pulley cover assembly.



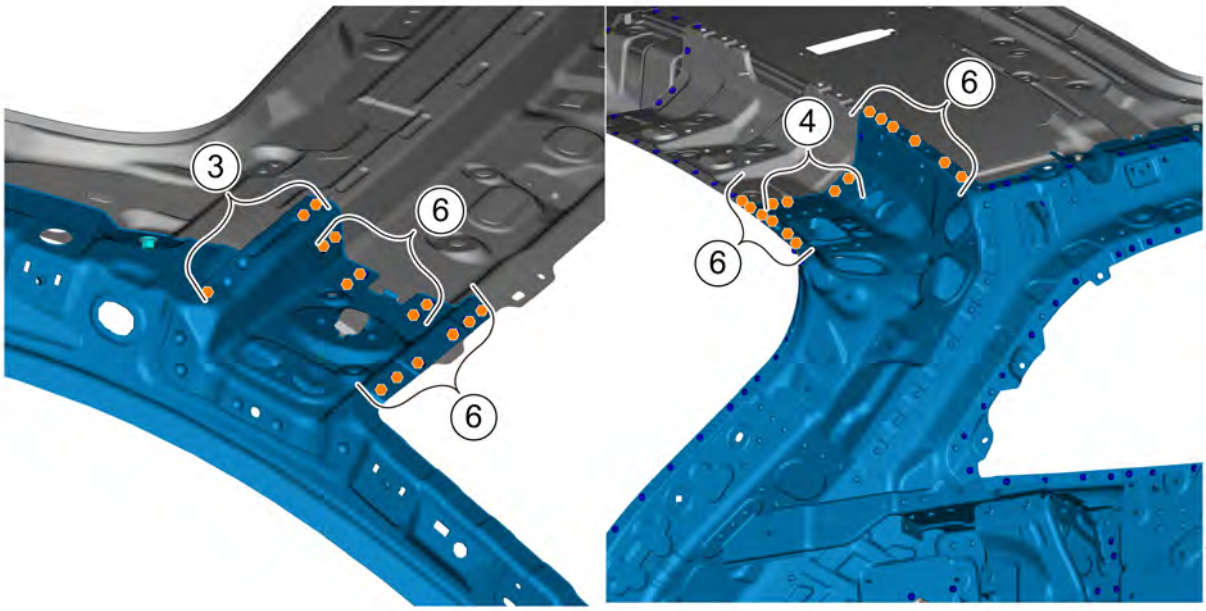
5. After drilling holes at the welding spots shown in the figure below, remove the fixing points between the left side wall assembly and the rear wall panel assembly & the left rear side member assembly.



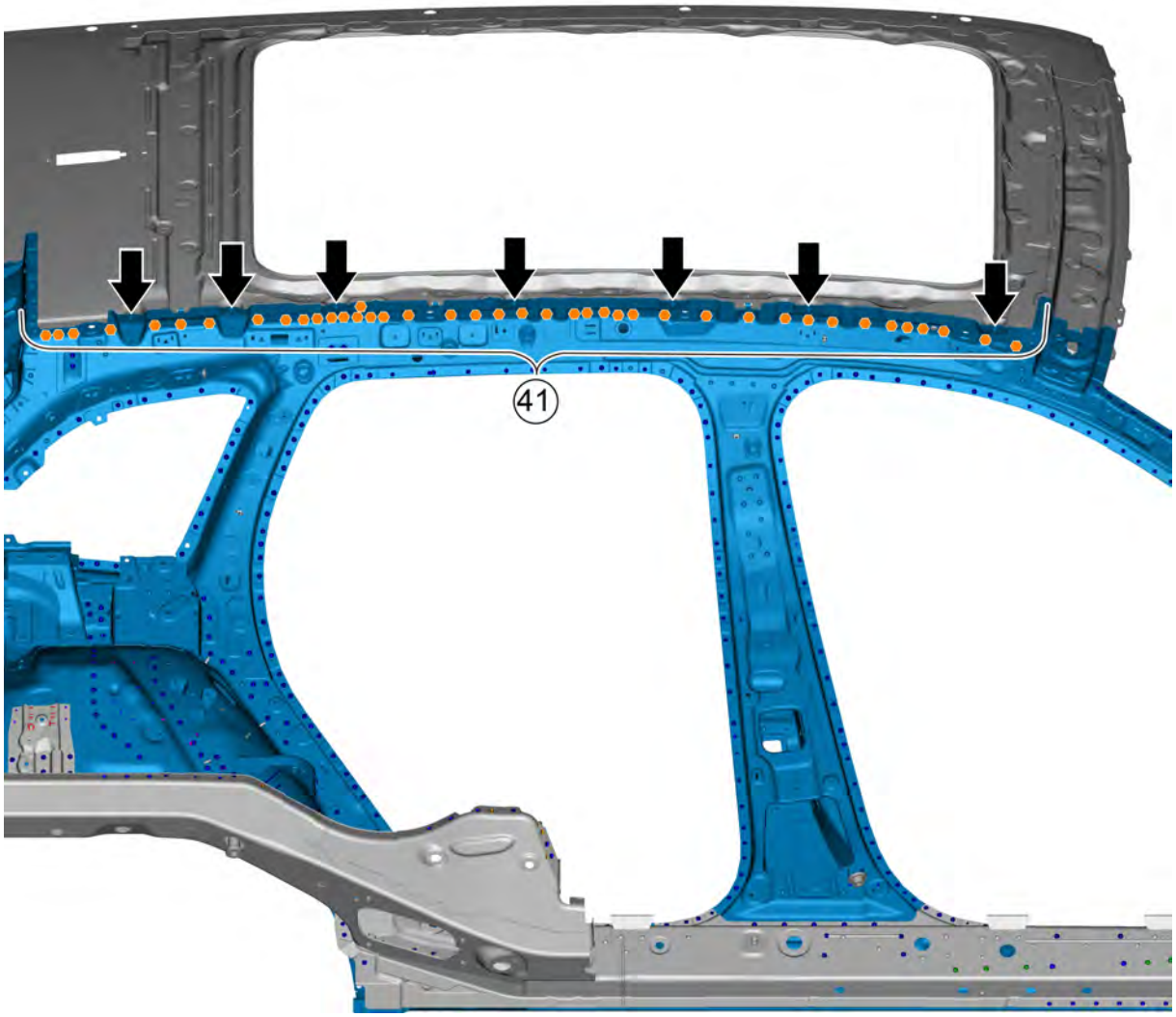
6. After drilling holes at the welding spots shown in the figure below, remove the fixing points between the left side wall assembly and the rear floor assembly.



7. After drilling holes at the welding spots shown in the figure below, remove the fixing points between the left side wall assembly and the front cross beam assembly of roof and the rear crossmember assembly of roof.



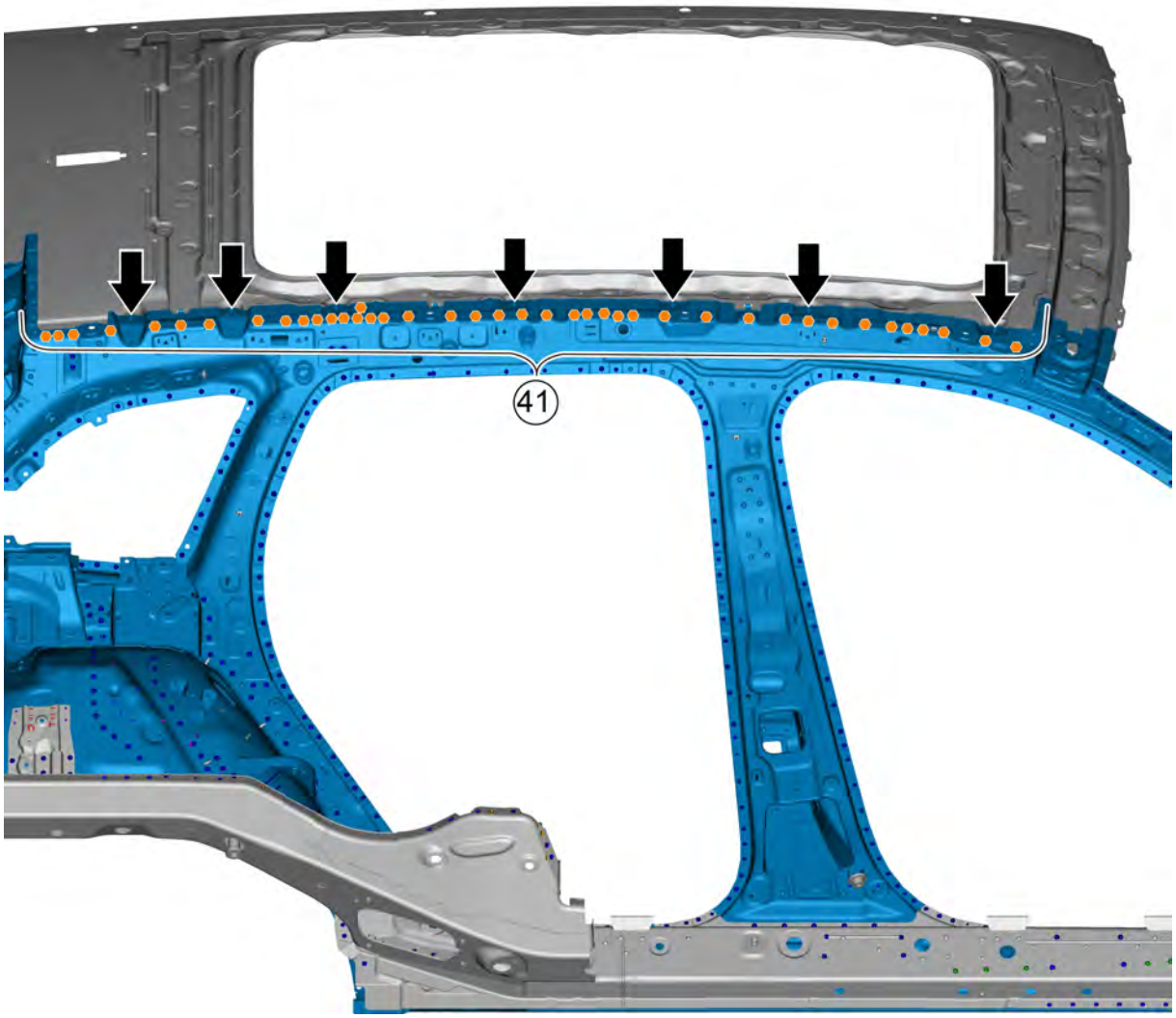
8. After drilling holes at the welding spots shown in the figure below, remove the fixing points between the left side wall assembly and the panel roof assembly.



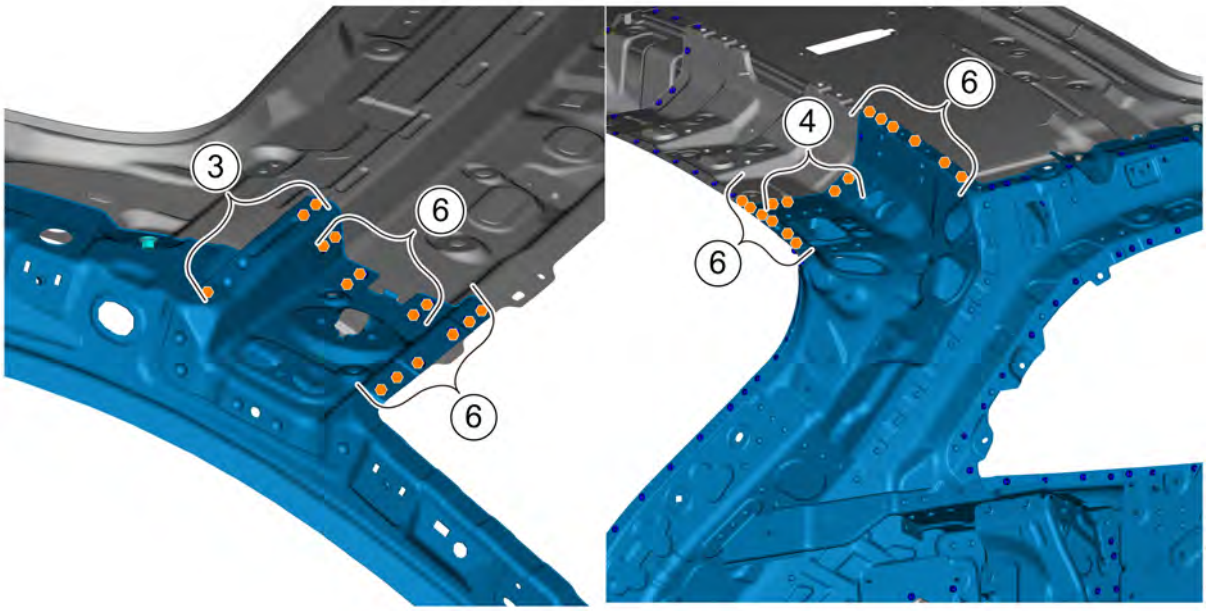
4.2.12 Mounting of left side wall assembly

4.2.12.1 Mounting of left side wall assembly

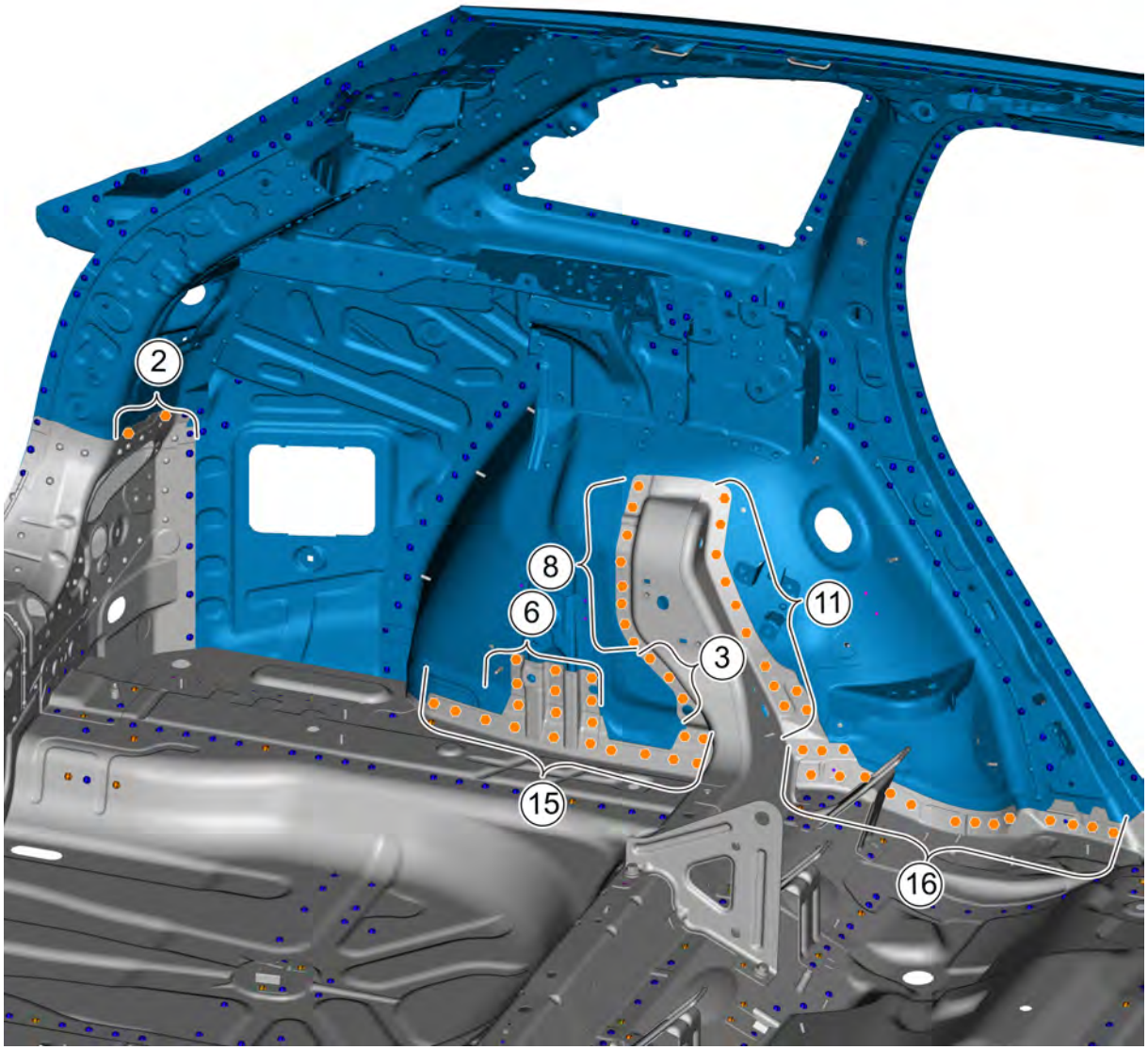
1. When mounting new parts, measure and adjust the body as needed to meet standard dimensions.
2. After temporarily mounting new parts, make sure that the related parts are properly connected.
3. After drilling holes at the welding spots shown in the figure below, remove the fixing points between the left side wall assembly and the panel roof assembly.



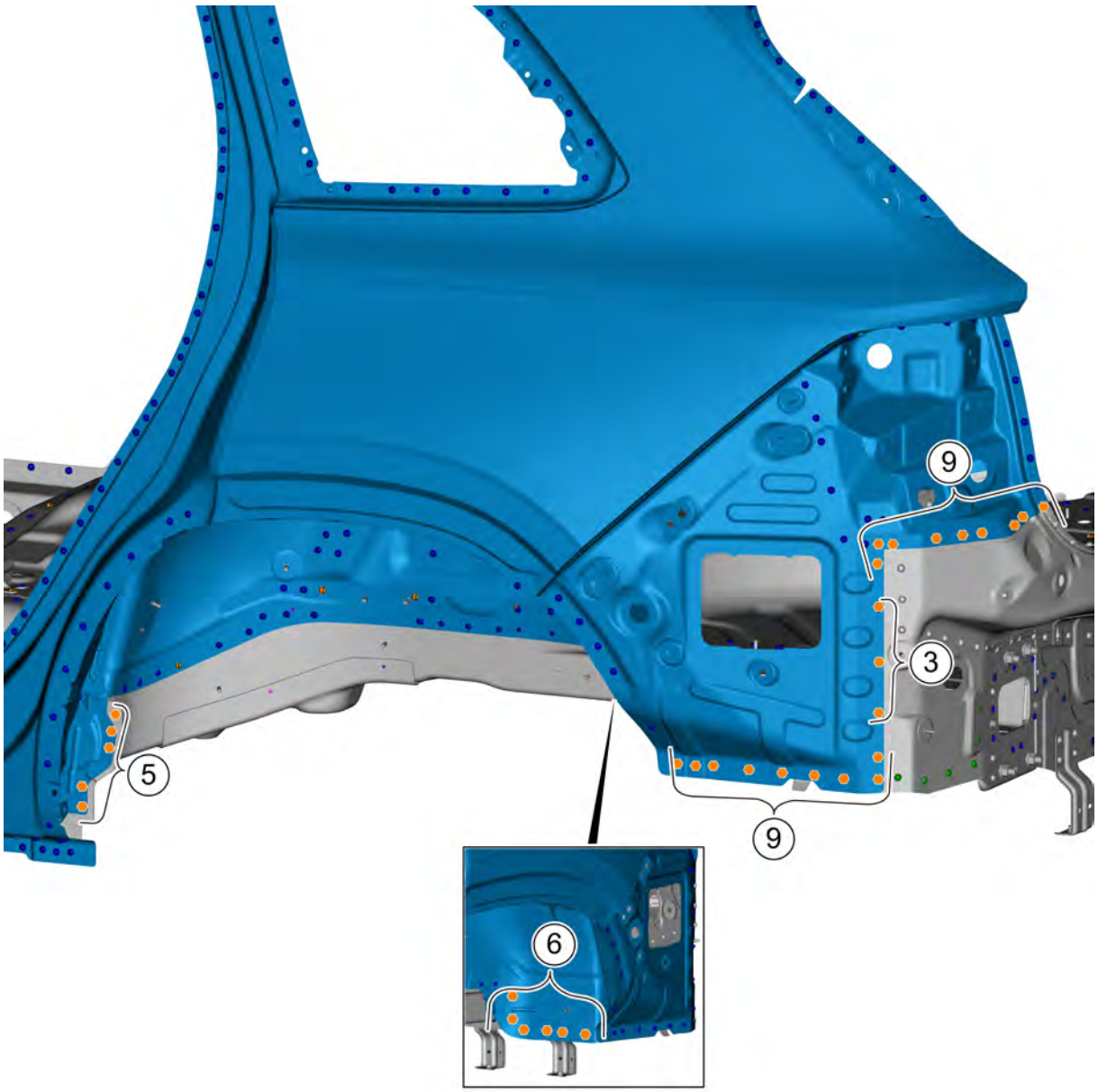
4. Mount the fixing points between the left side wall assembly and the front crossmember assembly of the roof and the rear crossmember assembly of the roof.



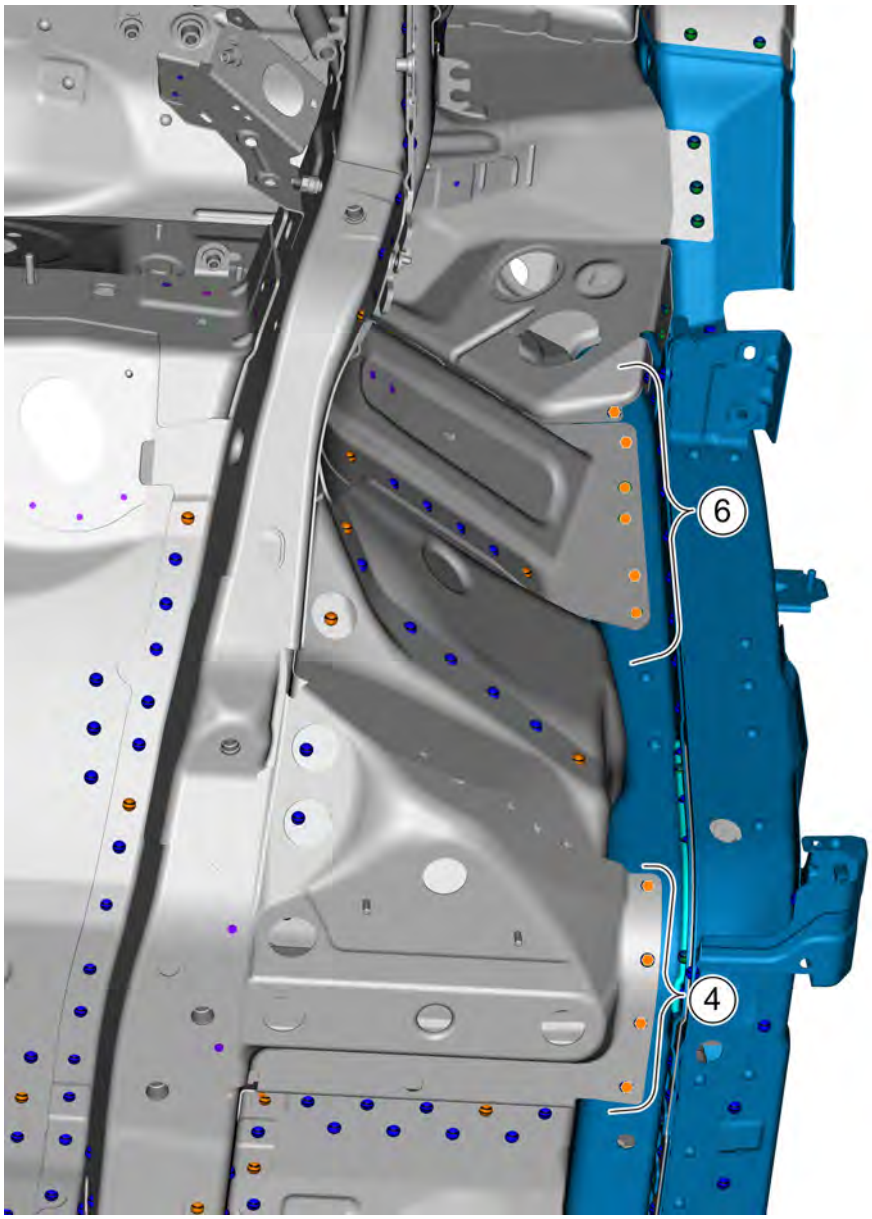
5. Mount the fixing points between the left side wall assembly and the rear floor assembly.



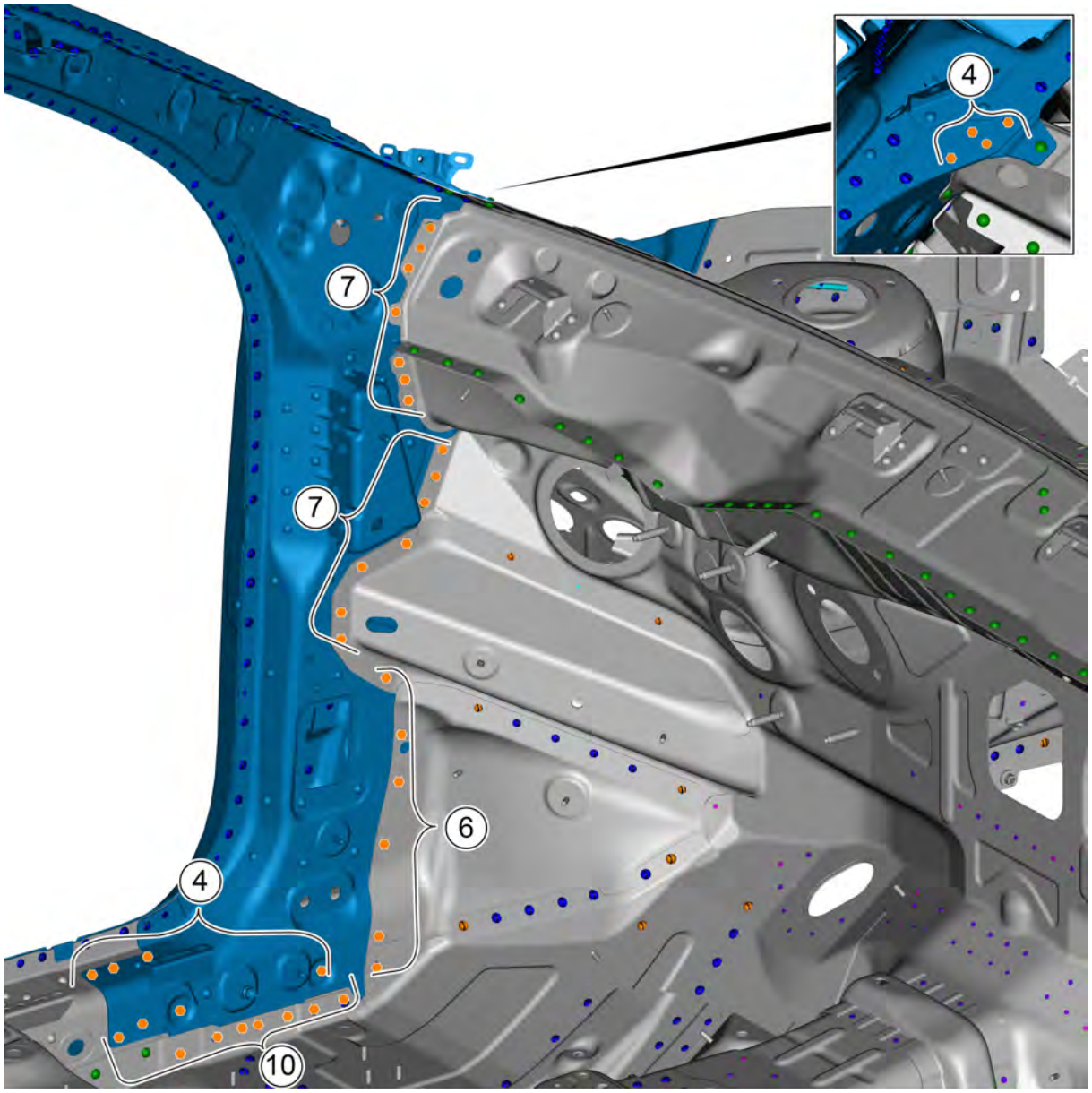
6. Mount the fixing points between the left side wall assembly and the rear wall panel assembly and the rear left side member assembly.



7. Mount the fixing points between the left side wall assembly and the left side member pulley cover assembly.



8. Mount the fixing points between the left side wall assembly and the front floor assembly.



9. Mount the fixing points between the left side wall assembly and the left door sill inner plate assembly.

10. Mount the front connecting plate assembly of the left side wall.

4.2.13 Removal of left side wall outer panel assembly

4.2.13.1 Removal of left side wall outer panel assembly

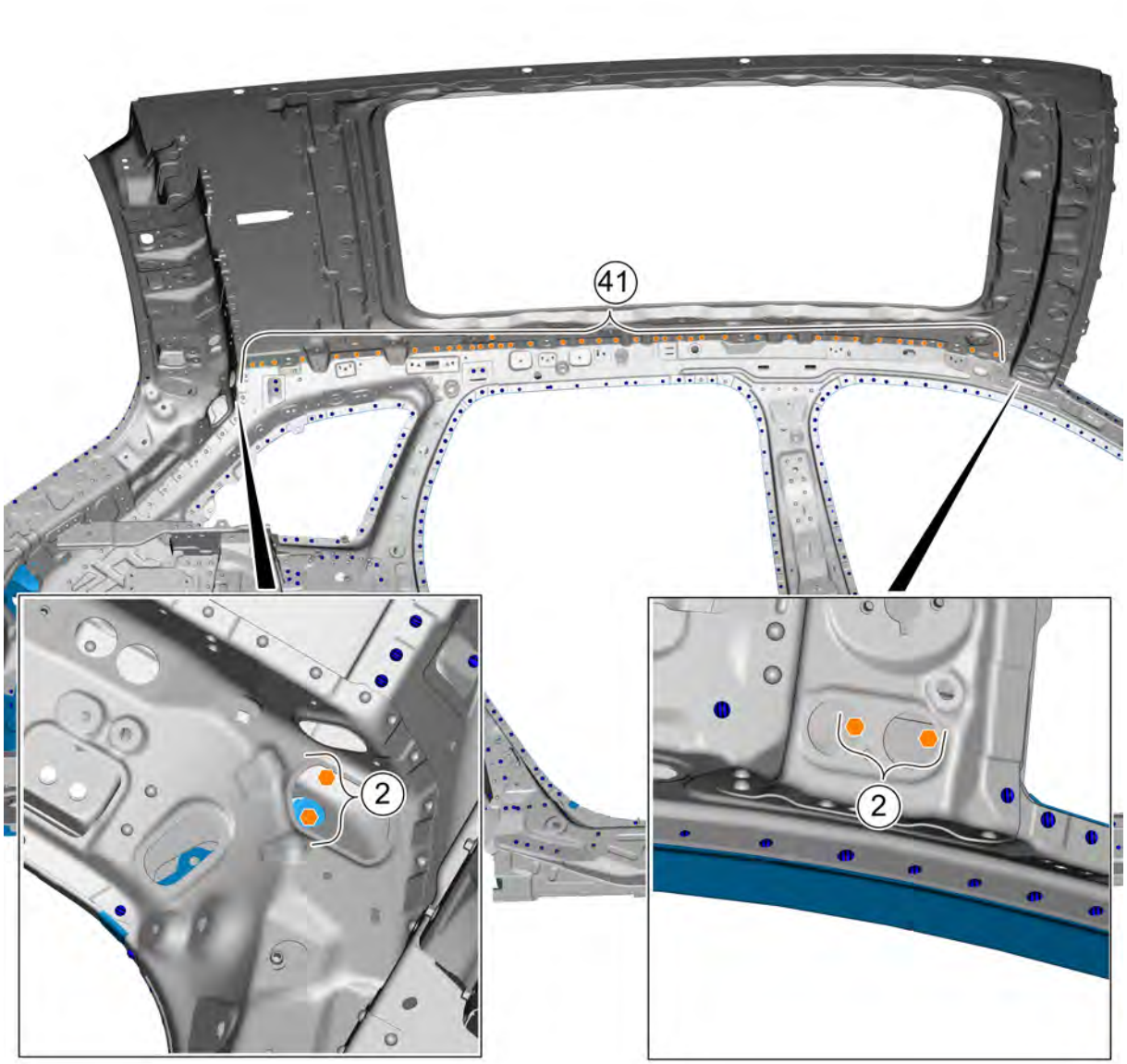
Positions of components in the vehicle

Component Disassembly

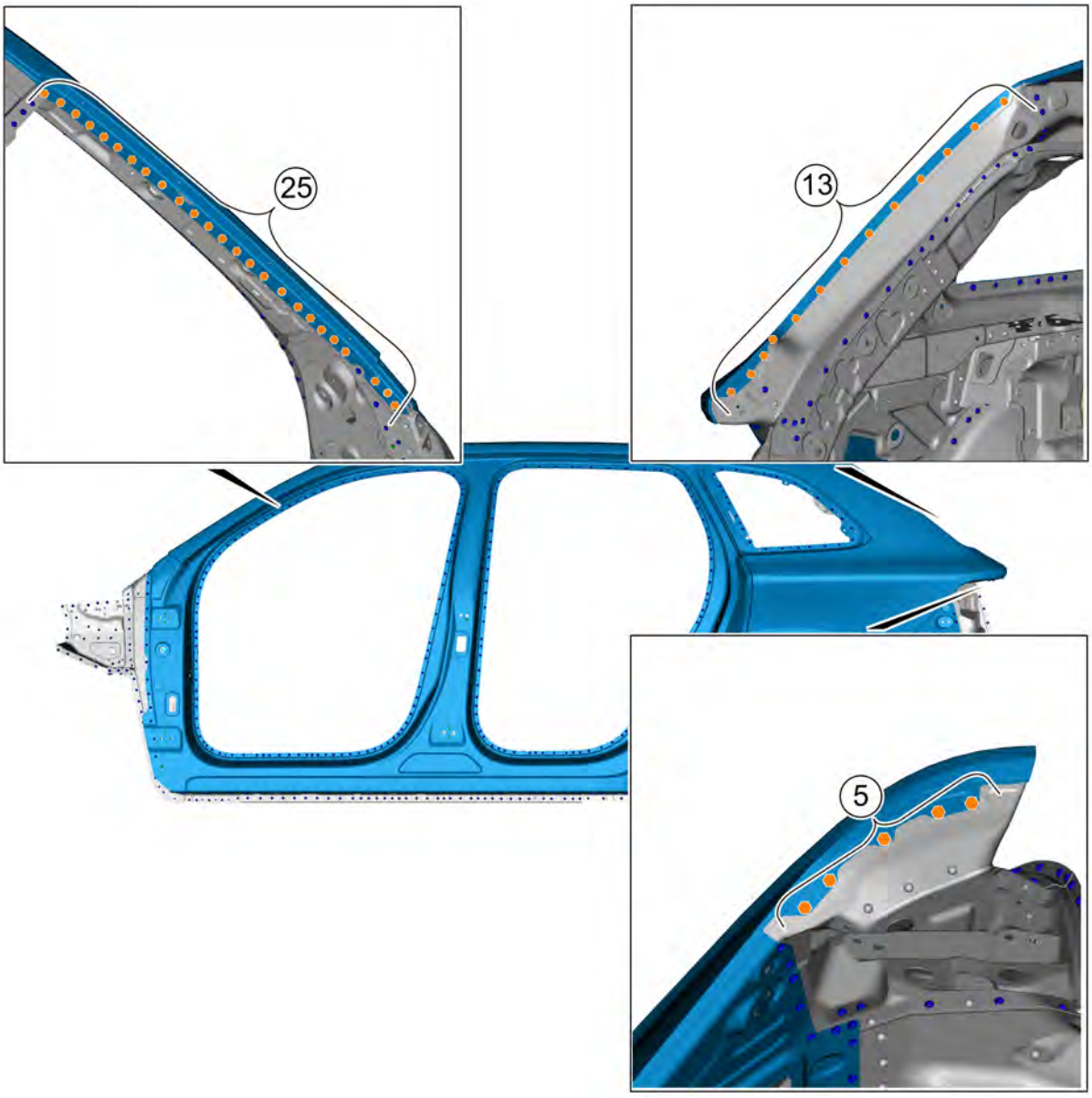
Caution

The removal method is the same for the left and right sides.

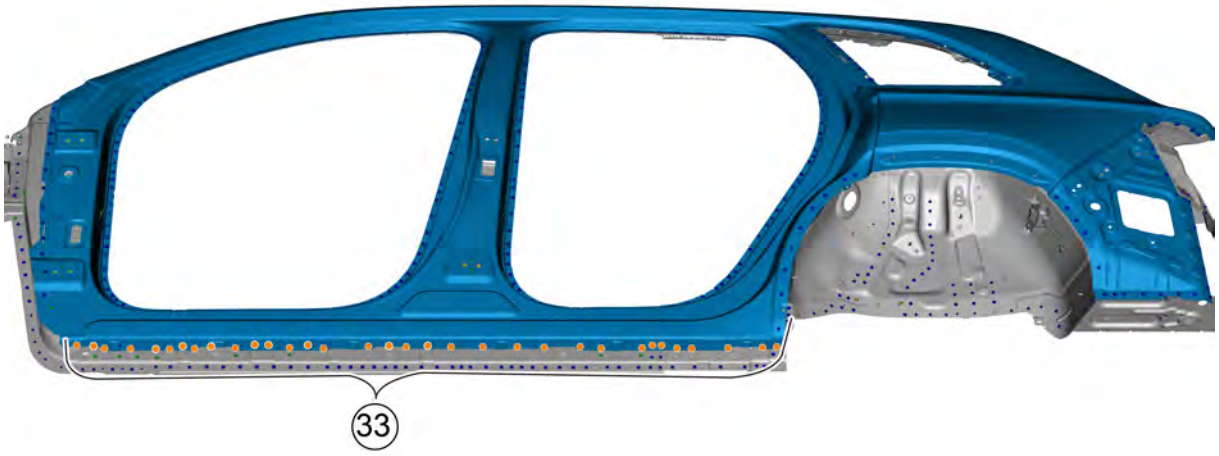
1. Remove the front connecting plate assembly of the left side wall. Refer to Removal of front connecting plate assembly of the left side wall.
2. After drilling holes at the welding spots shown in the figure below, remove the fixing points between the left side wall outer panel assembly and the left side wall inner panel.



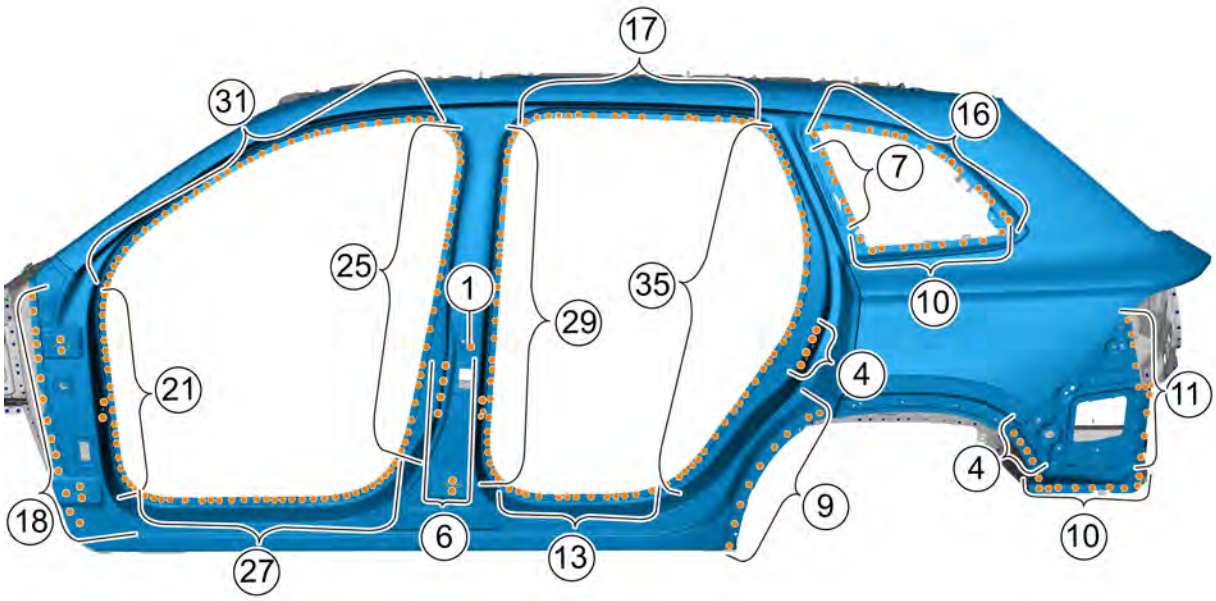
3. After drilling holes at the welding spots shown in the figure below, remove the fixing points between the left side wall outer plate and the left A-pillar inner plate assembly and the left side wall rear drip rail assembly.



4. After drilling holes at the welding spots shown in the figure below, remove the fixing points between the left side wall outer plate and the left side wall front reinforcing plate assembly and the C-pillar reinforcing plate assembly.



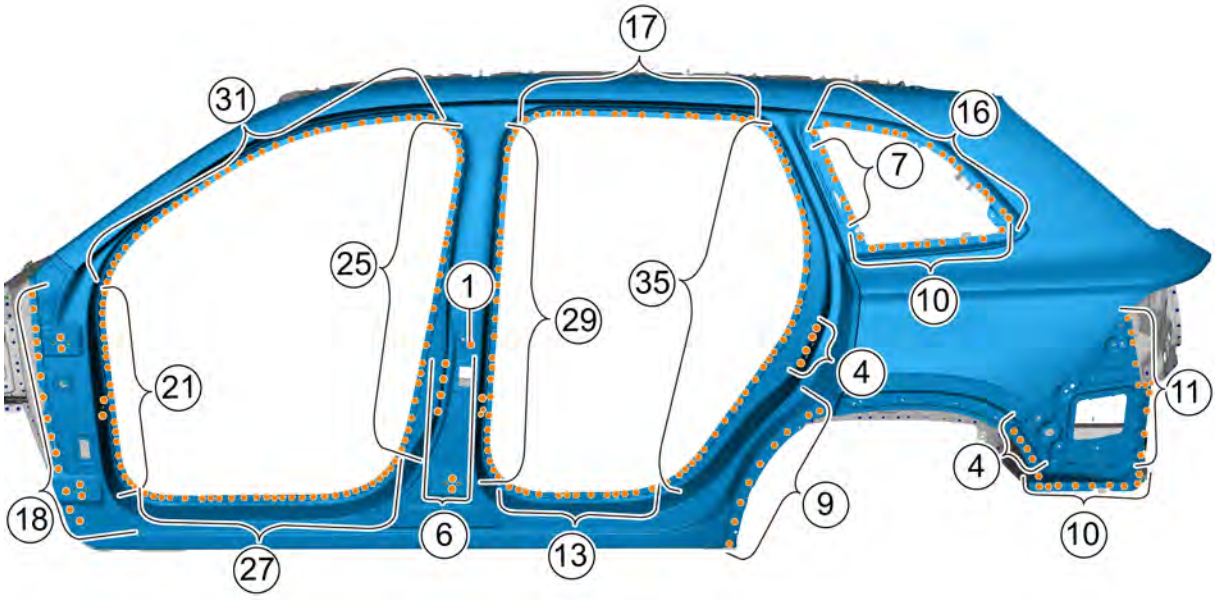
5. After drilling holes at the welding spots shown in the figure below, remove the fixing points between the left side wall outer panel assembly and the left side wall inner panel.



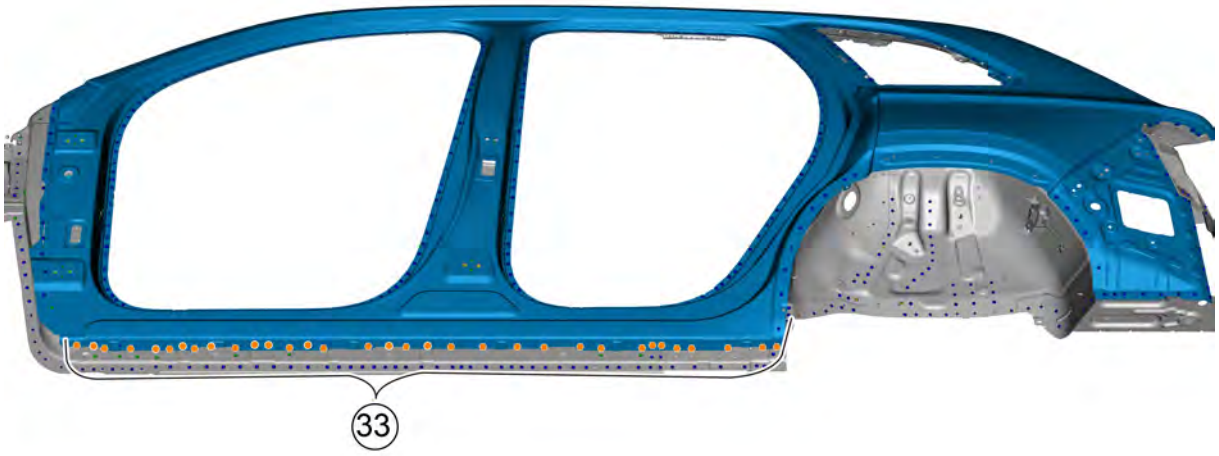
4.2.14 Mounting of left side wall outer panel

4.2.14.1 Mounting of left side wall outer panel

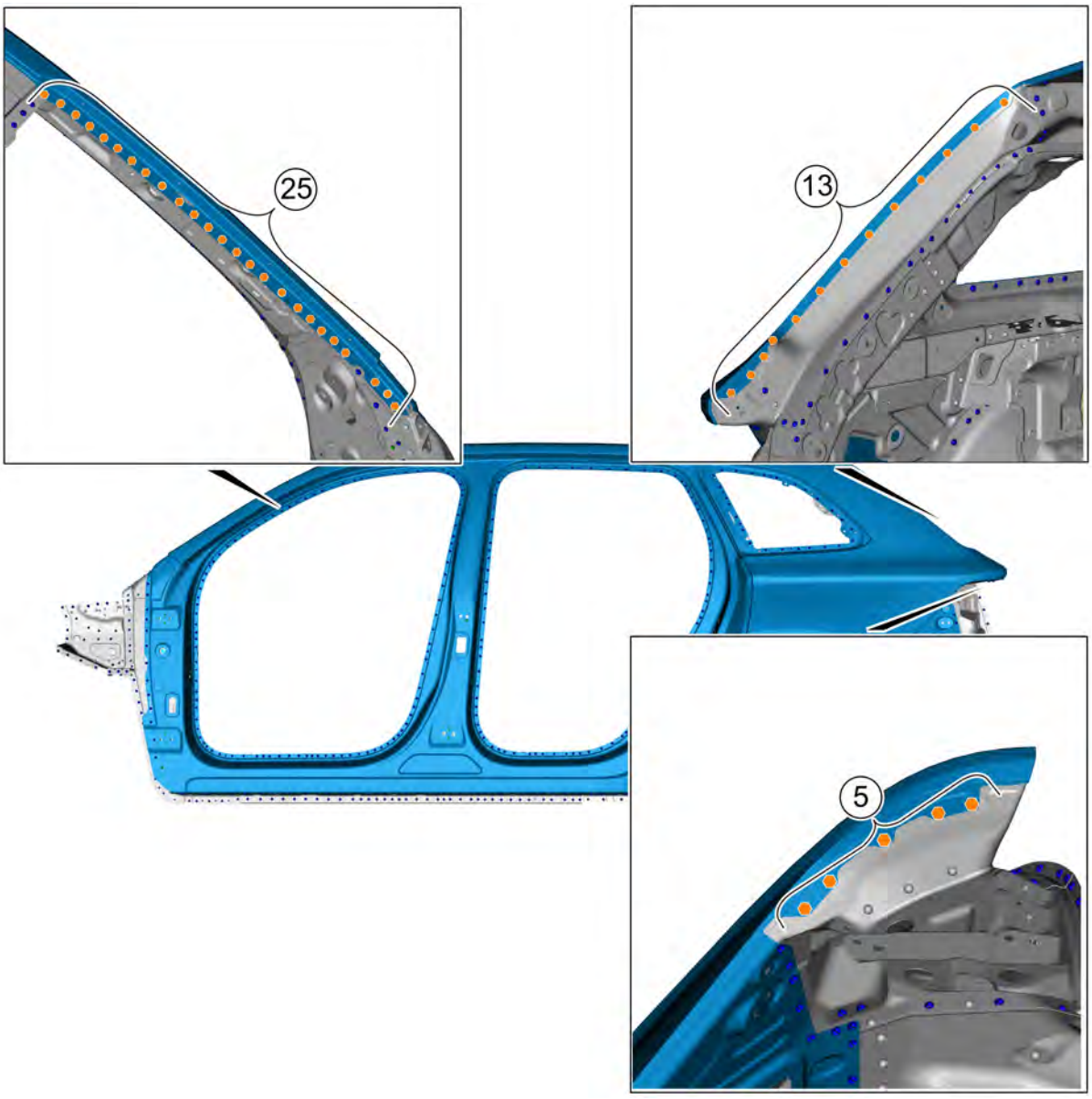
1. When mounting new parts, measure and adjust the body as needed to meet standard dimensions.
2. After temporarily mounting new parts, make sure that the related parts are properly connected.
3. Mount the fixing points between the left side wall outer plate and the left side wall inner plate assembly and the rear wall plate assembly.



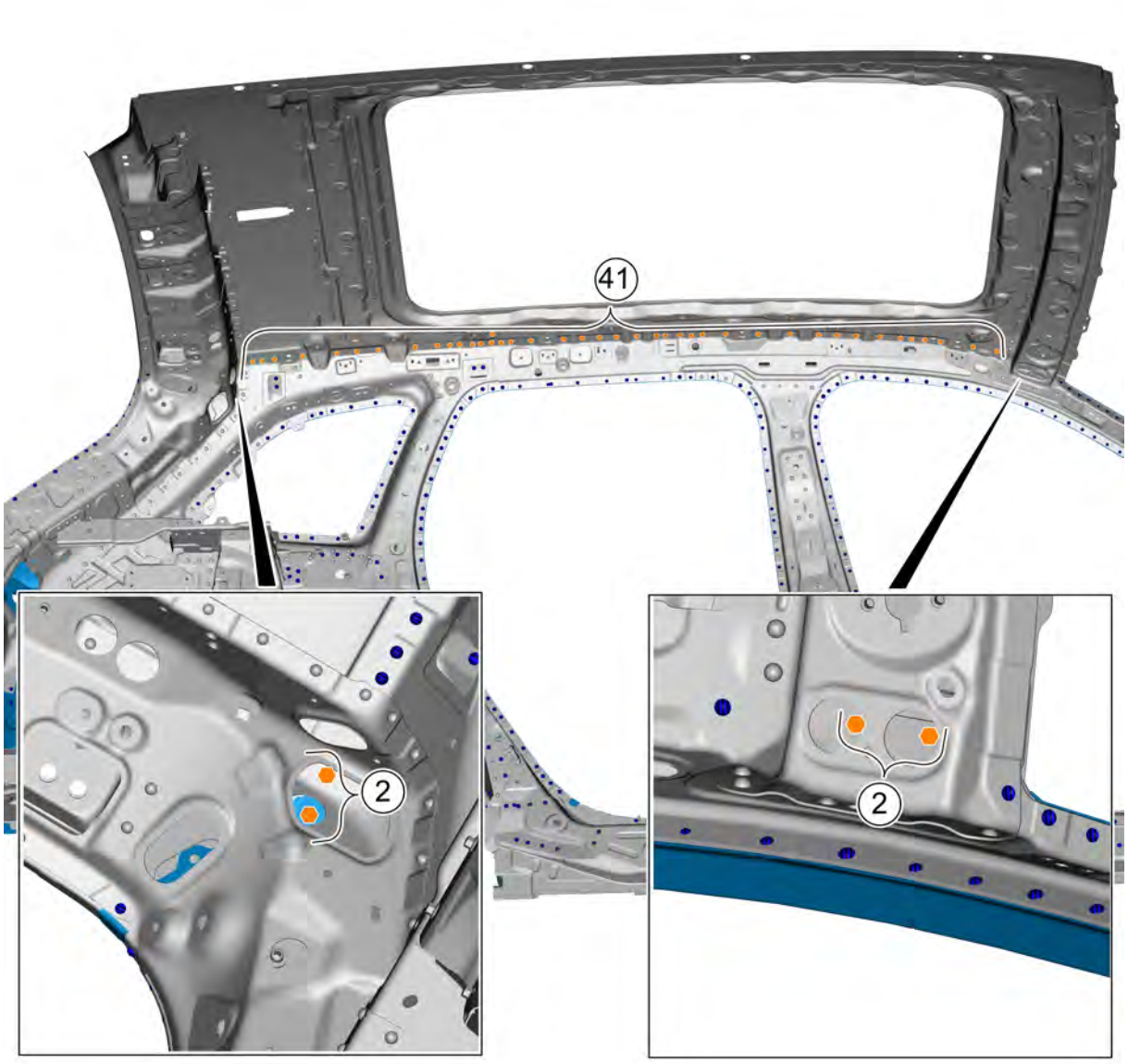
4. Mount the fixing points between the left side wall outer plate and the left side wall front reinforcing plate assembly and the C-pillar reinforcing plate assembly.



5. Mount the fixing points between the left side wall outer plate and the left A-pillar inner plate assembly and the left side wall rear drip rail assembly.



6. Mount the fixing points between the left side wall outer panel assembly and the left side wall inner panel.



7. Mount the front connecting plate assembly of the left side wall.

4.2.15 Removal of left A-pillar inner plate assembly

4.2.15.1 Removal of left A-pillar inner plate assembly

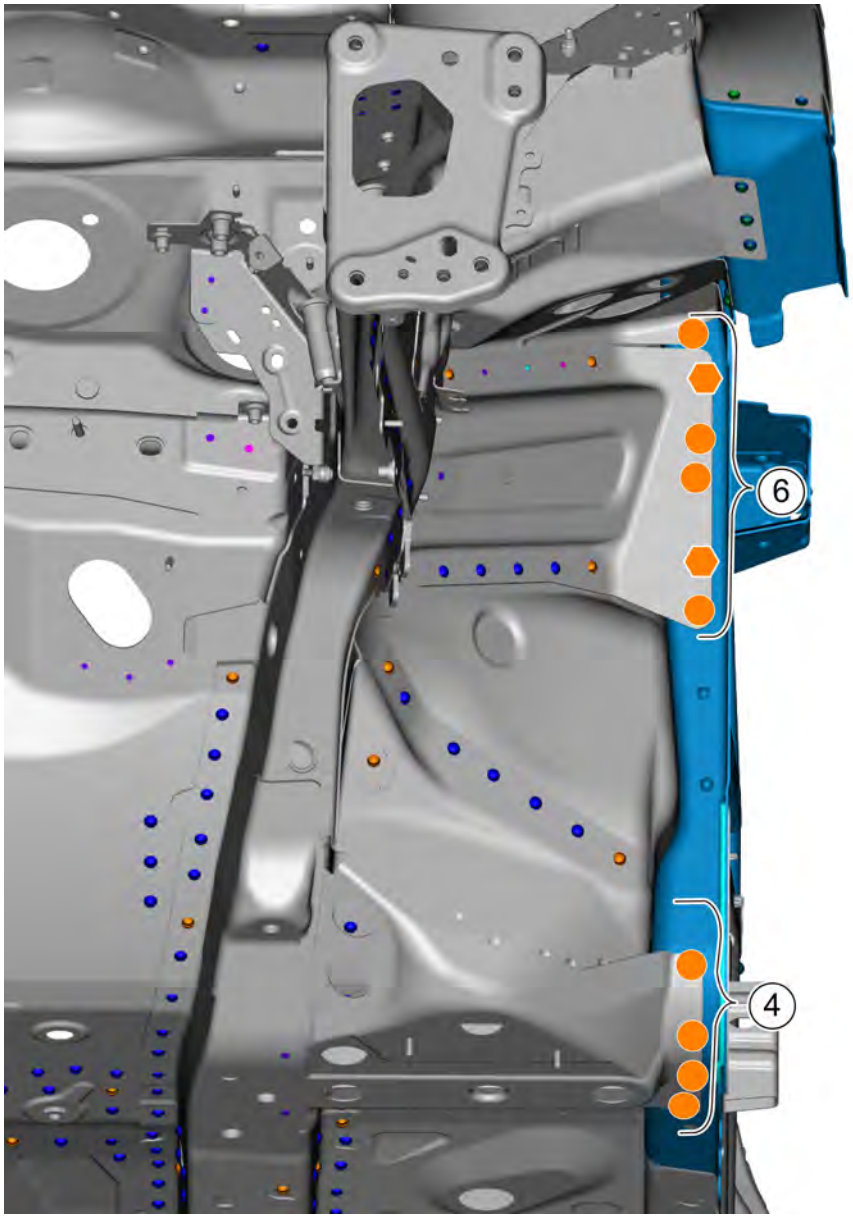
Positions of components in the vehicle

Component Disassembly

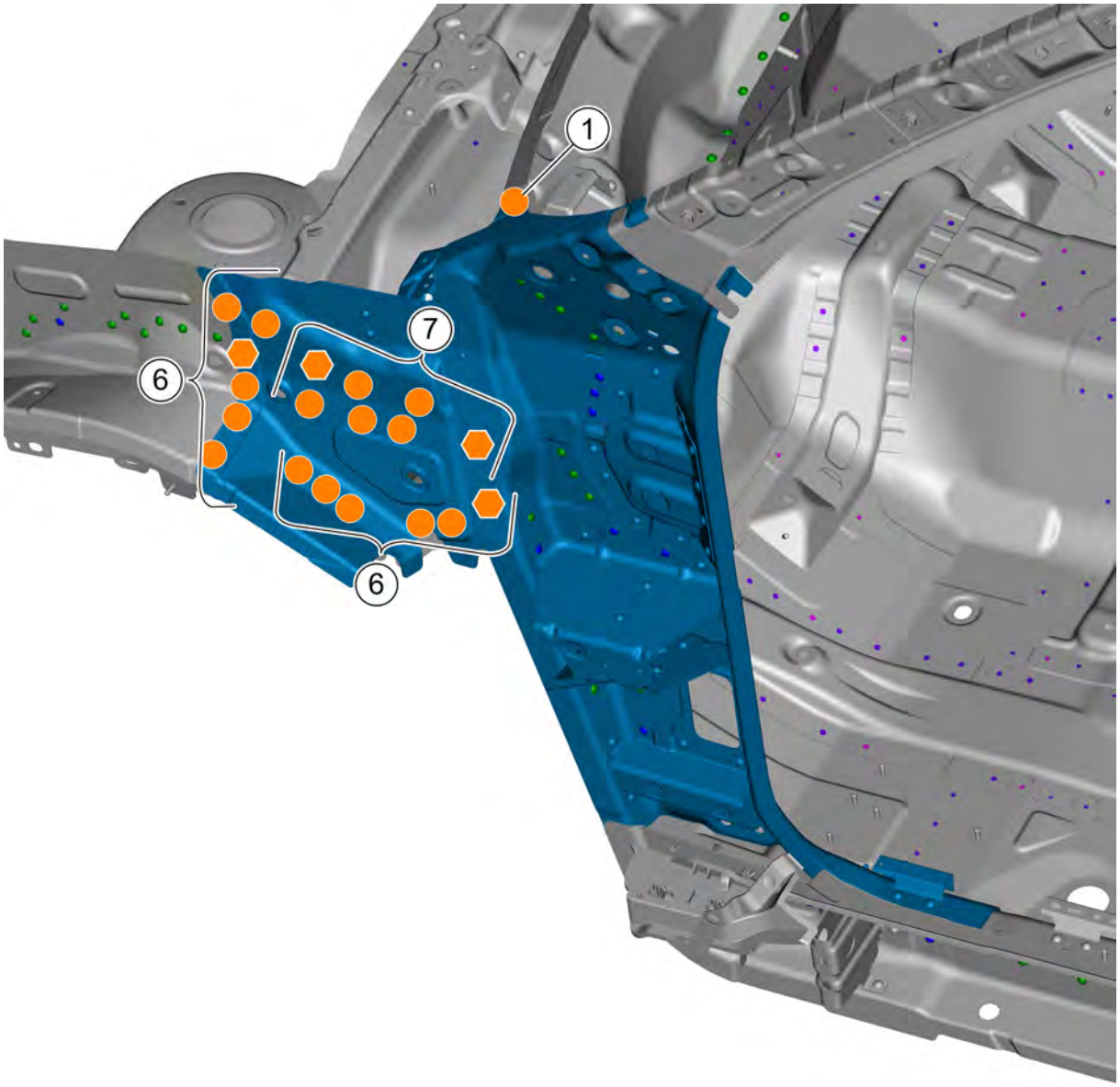
Caution

The removal method is the same for the left and right sides.

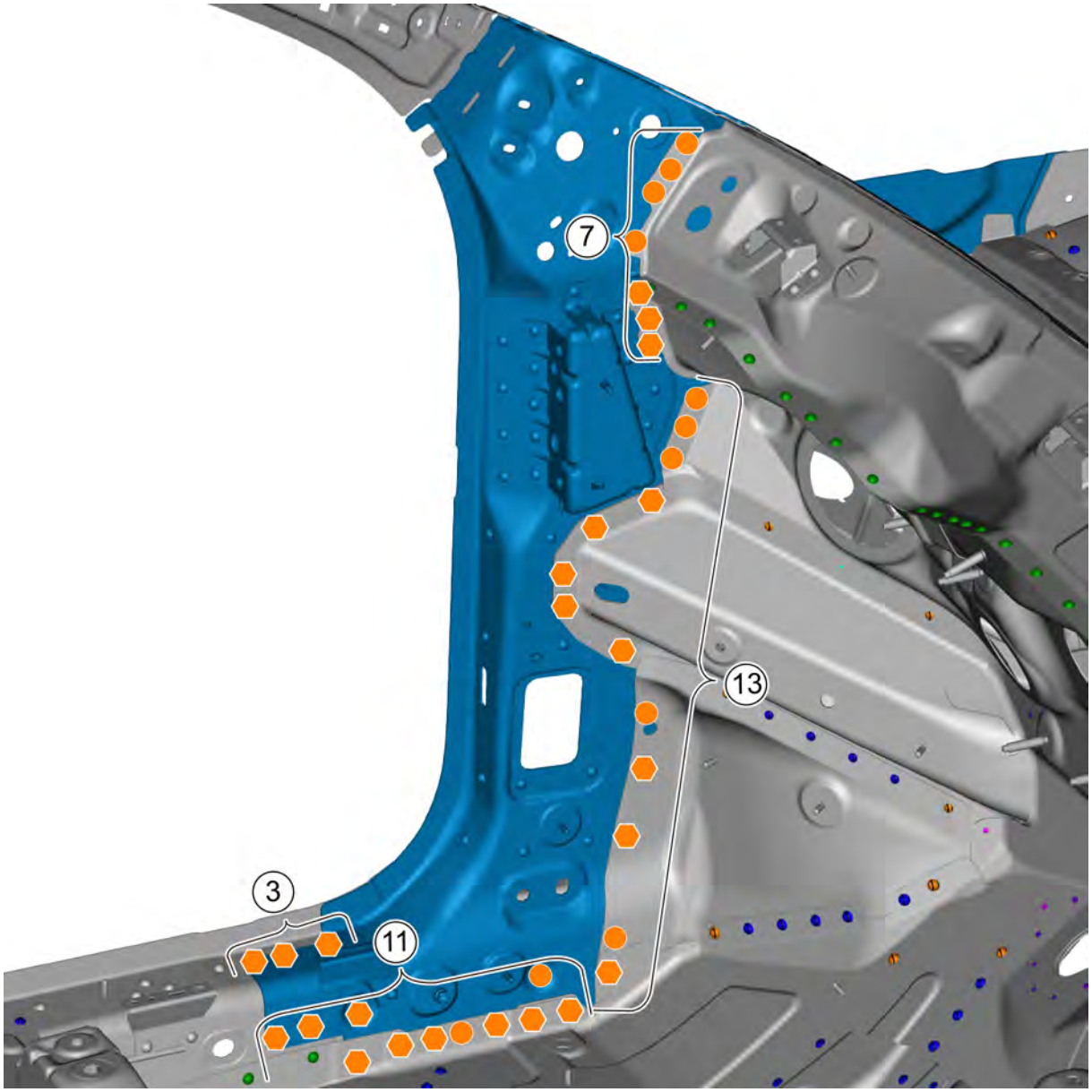
1. Remove the front connecting plate assembly of the left side wall. Refer to Removal of front connecting plate assembly of the left side wall.
2. Remove the left side wall outer panel. Refer to Removal of left side wall outer panel.
3. Remove the front reinforcing plate assembly of the left side wall. Refer to Removal of front reinforcing plate assembly of the left side wall.
4. After drilling holes at the welding spots shown in the figure below, remove the fixing points between the left A-pillar inner plate assembly and the left side member pulley cover assembly.



5. After drilling holes at the welding spots shown in the figure below, remove the fixing points between the left A-pillar inner plate assembly and the front wall assembly and the left side member pulley cover assembly.



6. After drilling holes at the welding spots shown in the figure below, remove the fixing points between the left A-pillar inner plate assembly and the front wall assembly and the left side member pulley cover assembly.



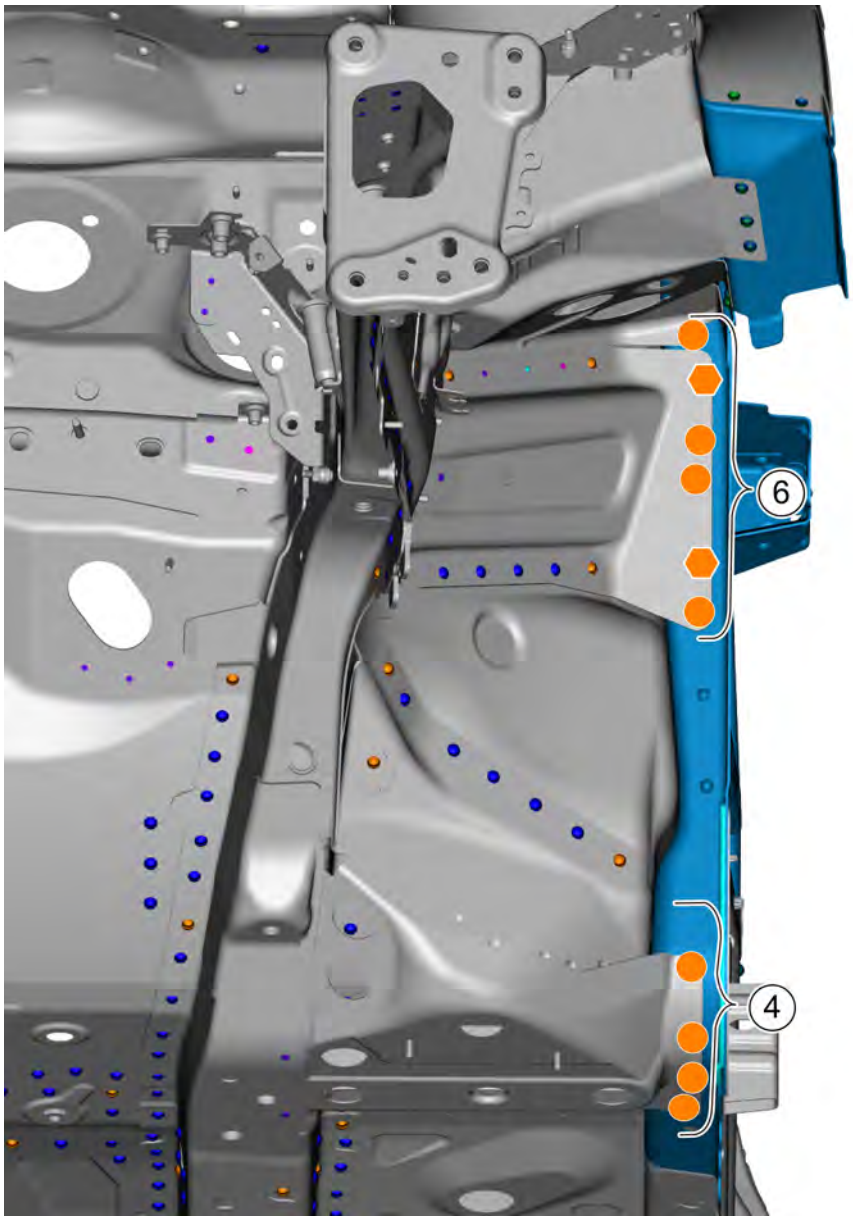
4.2.16 Mounting of left A-pillar inner plate assembly

4.2.16.1 Mounting of left A-pillar inner plate assembly

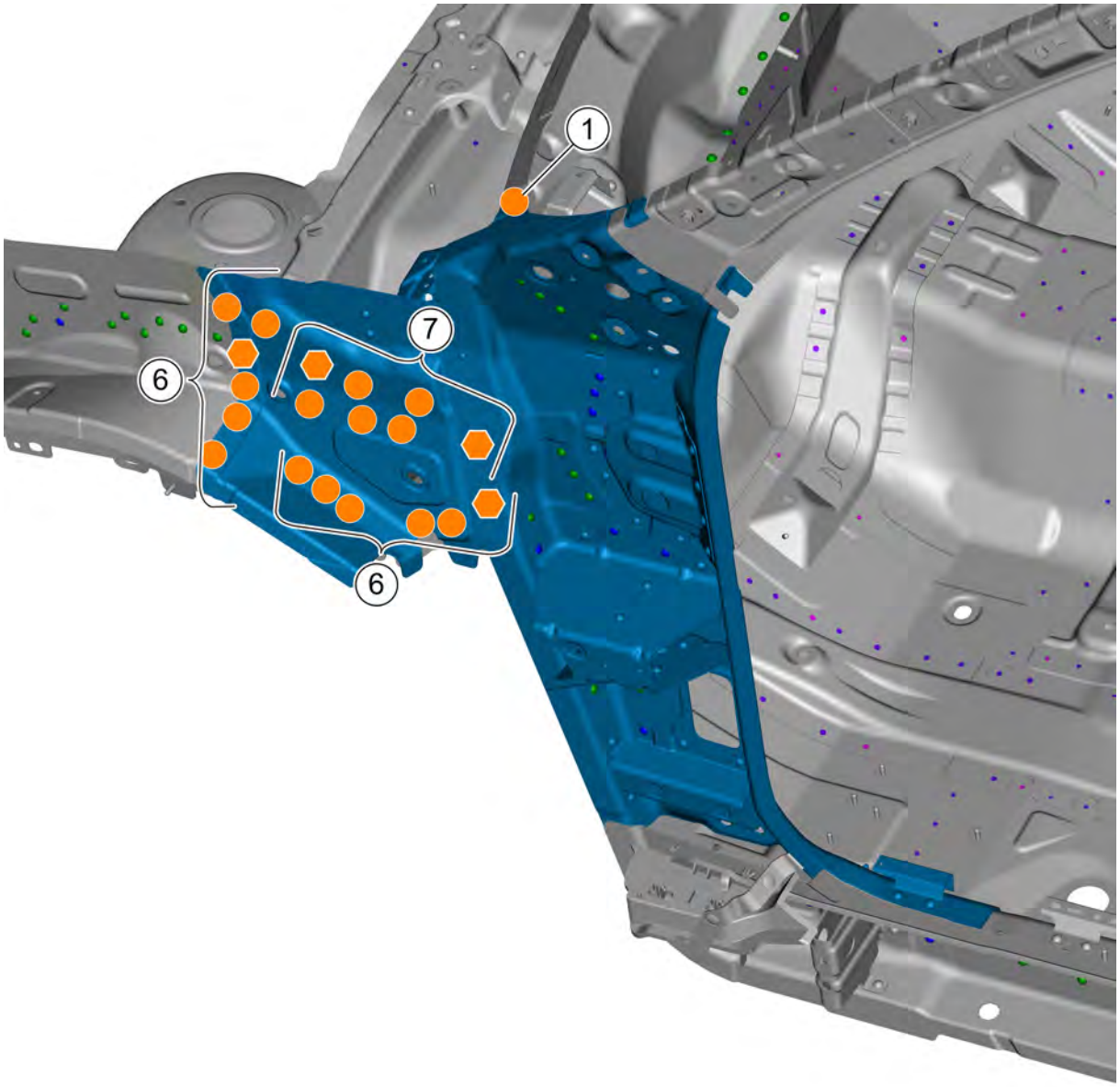
1. When mounting new parts, measure and adjust the body as needed to meet standard dimensions.

2. After temporarily mounting new parts, make sure that the related parts are properly connected.

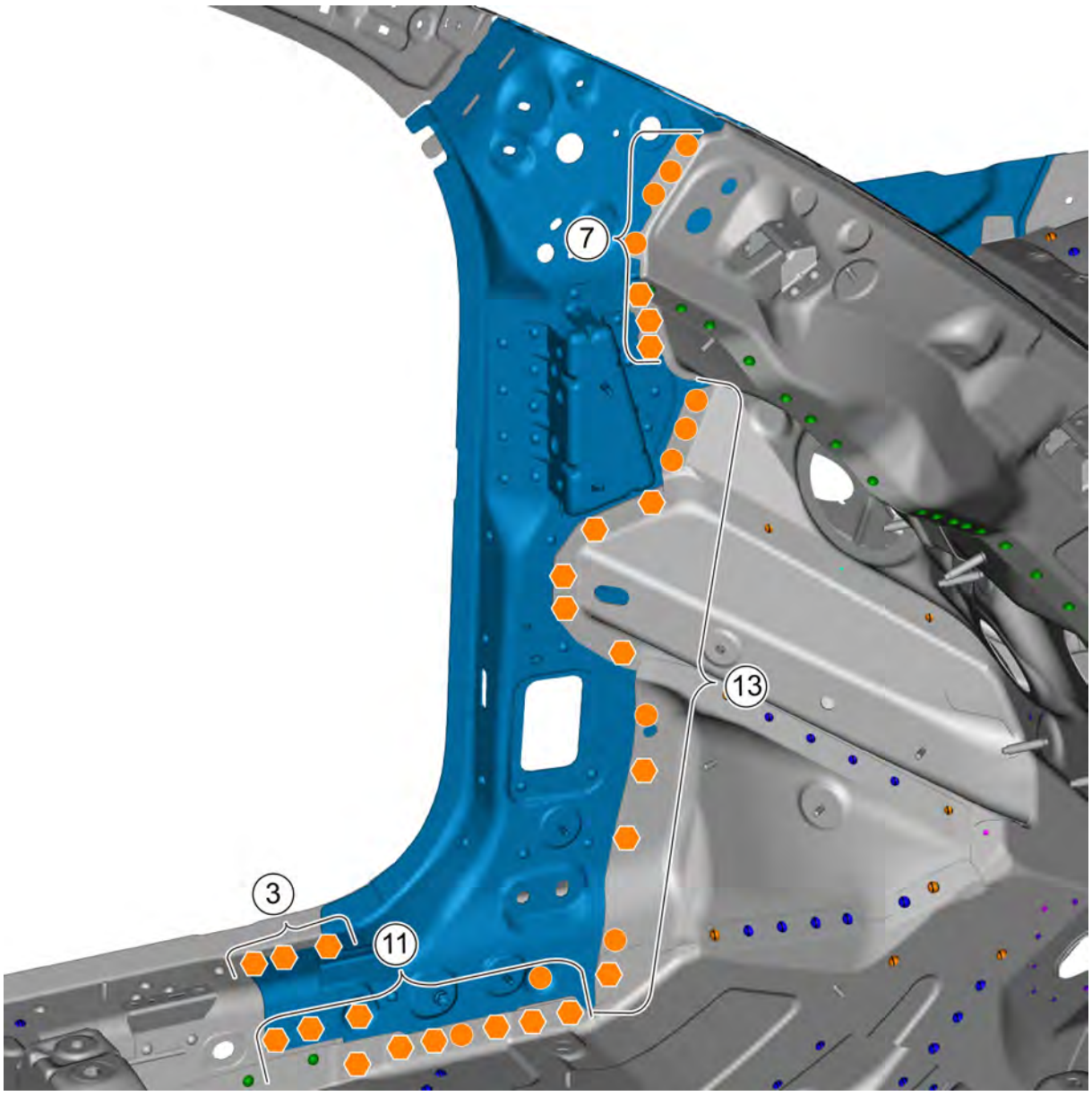
3. Mount the fixing points between the left A-pillar inner plate assembly and the left side member pulley cover assembly.



4. Mount the fixing points between the left A-pillar inner plate assembly and the front wall upper assembly and the left side member pulley cover assembly.



5. Mount the fixing points between the left A-pillar inner plate assembly and the front wall assembly and the left side member pulley cover assembly.



6. Mount the front reinforcing plate assembly of the left side wall.

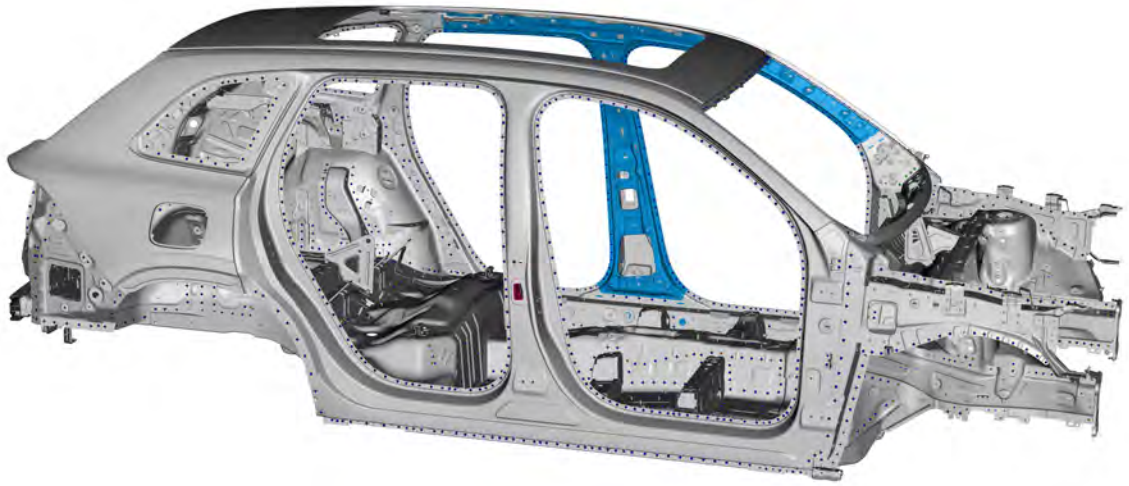
7. Mount the left body side outer panel.

8. Mount the front connecting plate assembly of the left side wall.

4.2.17 Removal of front inner plate assembly of left side wall

4.2.17.1 Removal of front inner plate assembly of left side wall

Positions of components in the vehicle



Component Disassembly

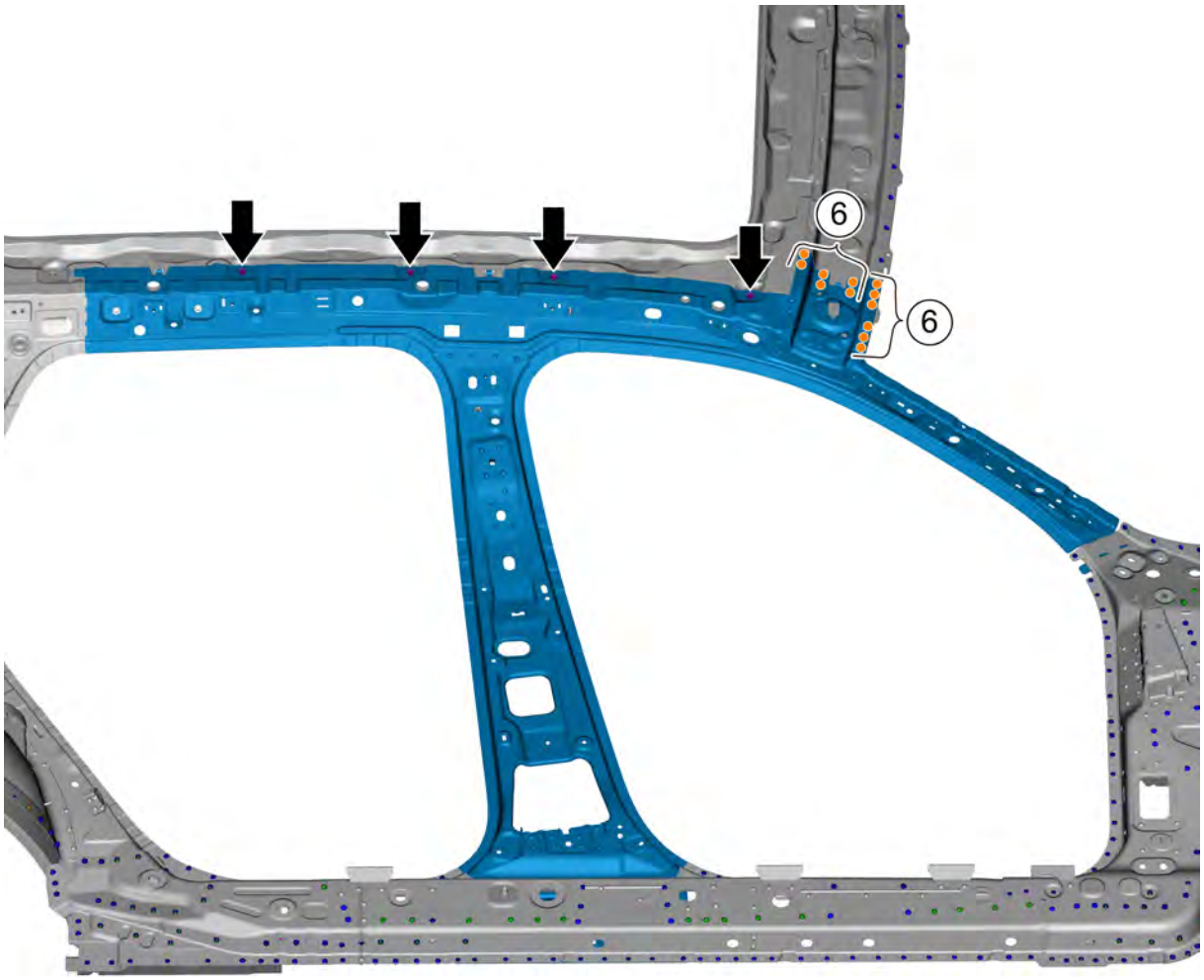
Caution

The removal method is the same for the left and right sides.

1. Remove the front connecting plate assembly of the left side wall. Refer to Removal of front connecting plate assembly of the left side wall.
2. Remove the left side wall outer panel. Refer to Removal of left side wall outer panel.
3. Remove the front reinforcing plate assembly of the left side wall. Refer to Removal of front reinforcing plate assembly of the left side wall.
4. After drilling holes at the welding spots shown in the figure below, remove the fixing points between the front inner plate assembly of the left side wall and the inner plate assembly of the left door sill.

5. After drilling holes at the welding spots shown in the figure below, remove the fixing points between the front inner plate assembly of the left side wall and the roof assembly of the front crossmember assembly of the roof.

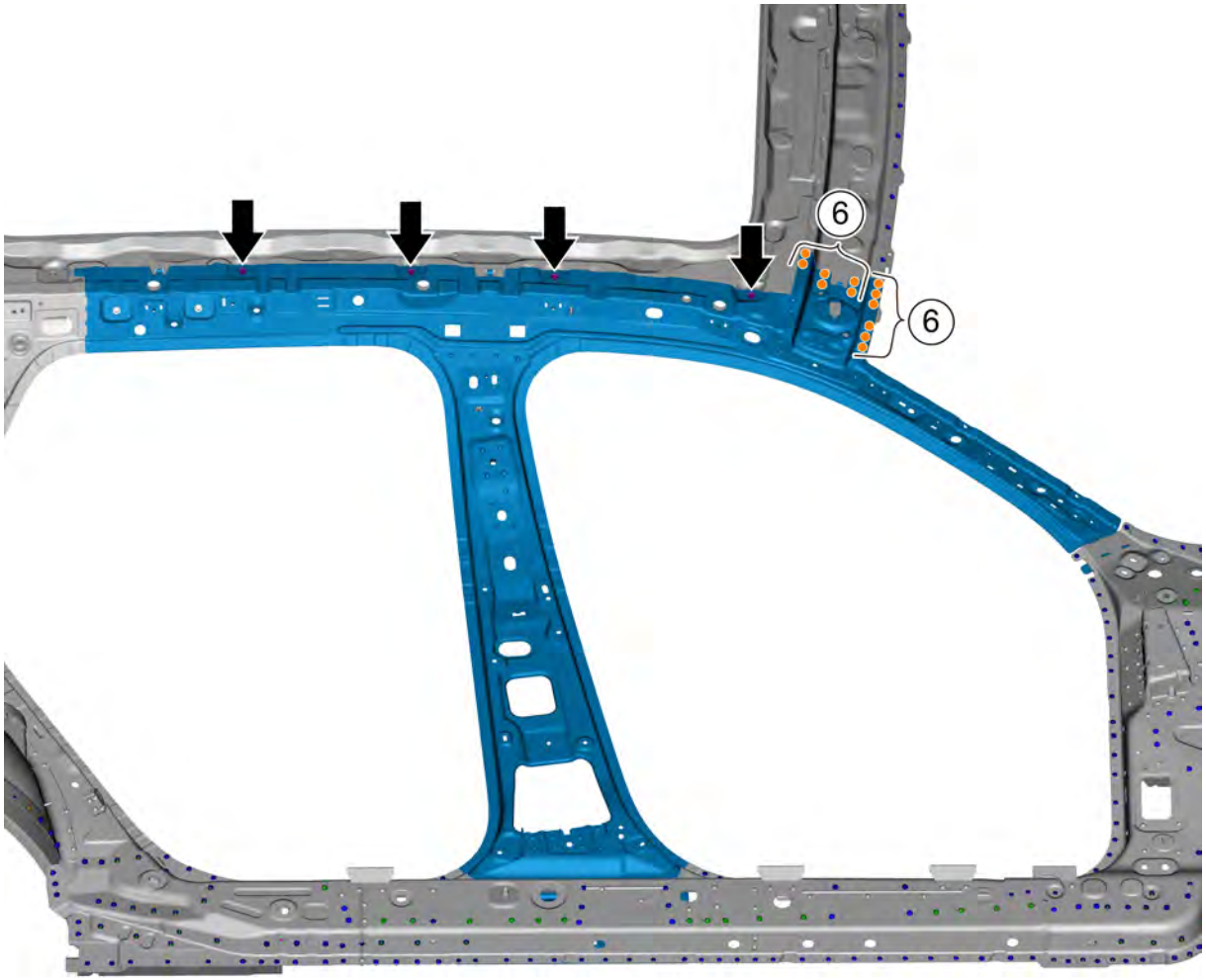
6. Remove the fixing bolt arrows of the front inner plate assembly of the left side wall and the roof assembly as shown in the figure below.



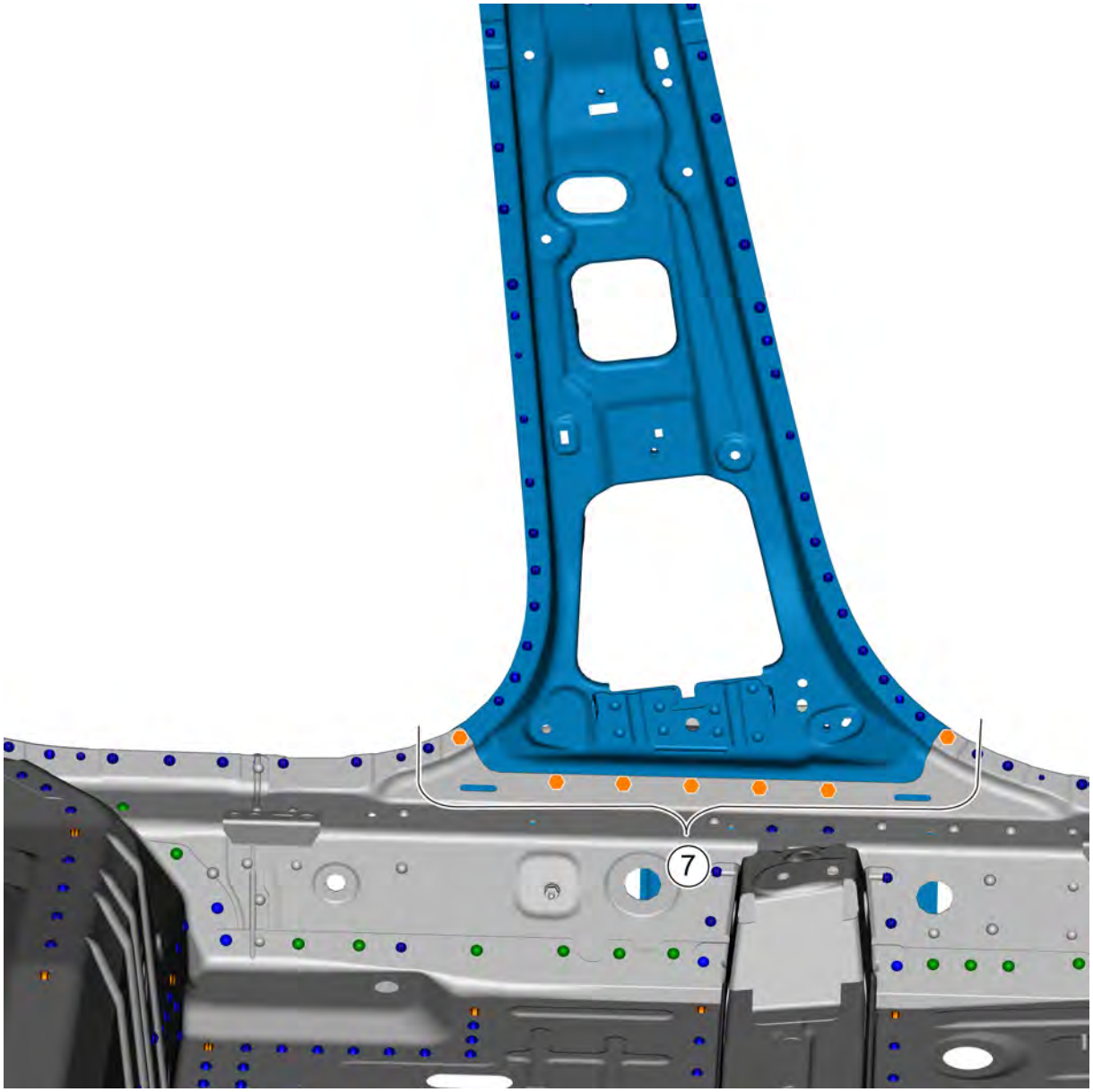
4.2.18 Mounting of front inner plate assembly of left side wall

4.2.18.1 Mounting of front inner plate assembly of left side wall

1. When mounting new parts, measure and adjust the body as needed to meet standard dimensions.
2. After temporarily mounting new parts, make sure that the related parts are properly connected.
3. Mount the fixing bolt arrows of the front inner plate assembly of the left side wall and the roof assembly.
4. Mount the fixing points between the front inner plate assembly of the left side wall and the top cover assembly of the front cross beam assembly of the roof.



5. Mount the fixing points between the front inner plate assembly of the left side wall and the inner plate assembly of the left door sill.



6. Mount the front reinforcing plate assembly of the left side wall.

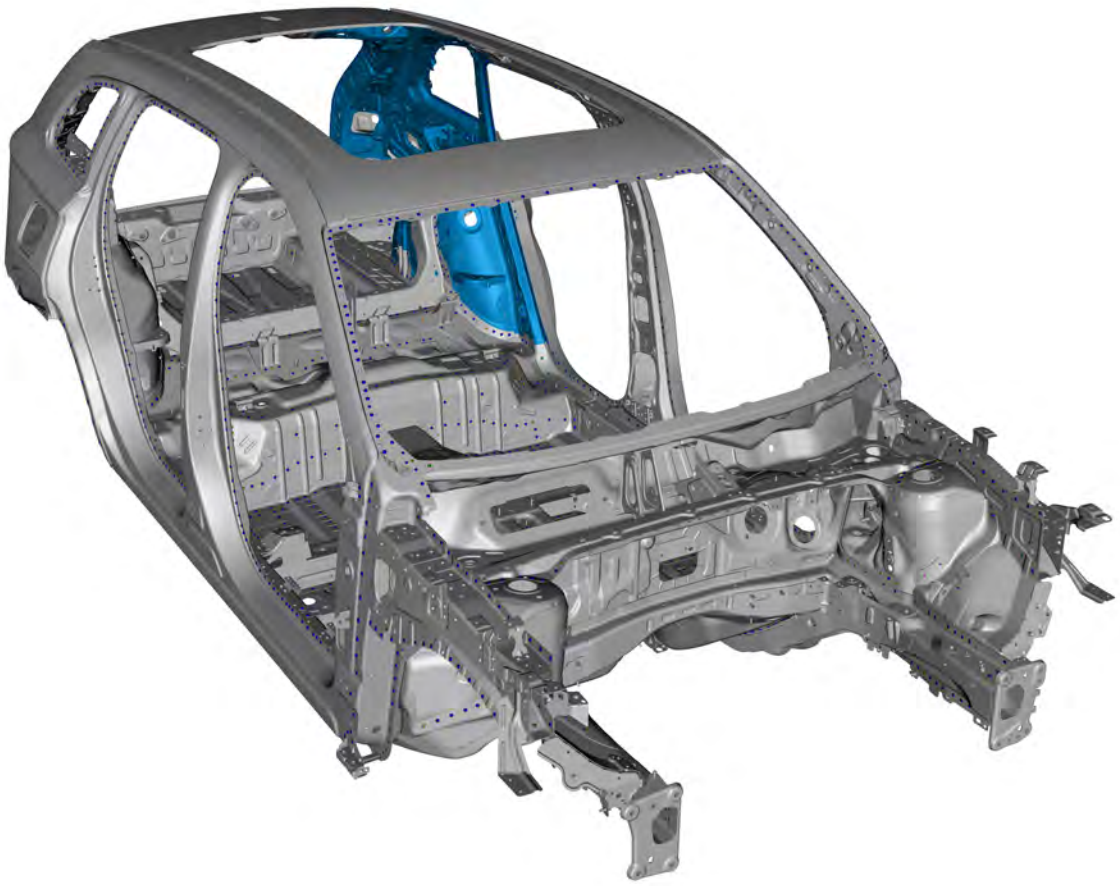
7. Mount the left body side outer panel.

8. Mount the front connecting plate assembly of the left side wall.

4.2.19 Removal of assembly-rear pillar LH

4.2.19.1 Removal of assembly-rear pillar LH

Positions of components in the vehicle

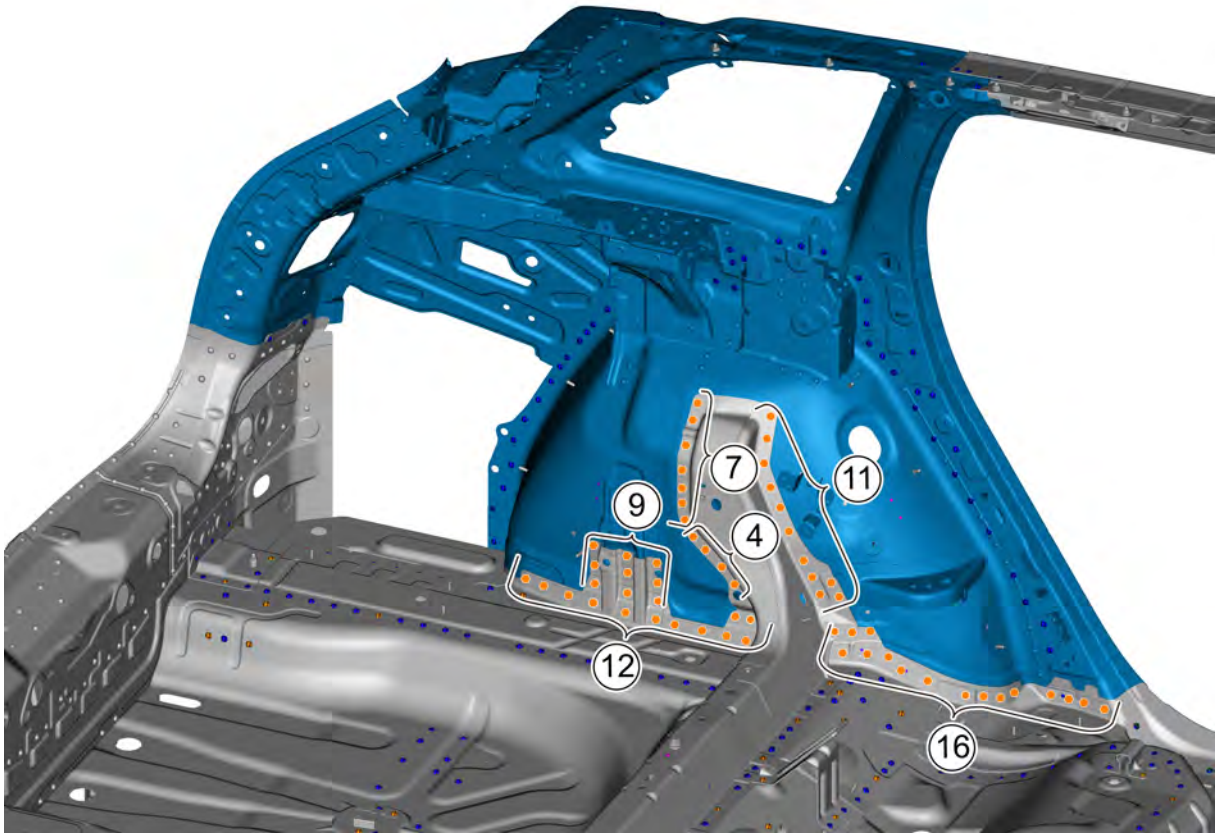


Component Disassembly

Caution

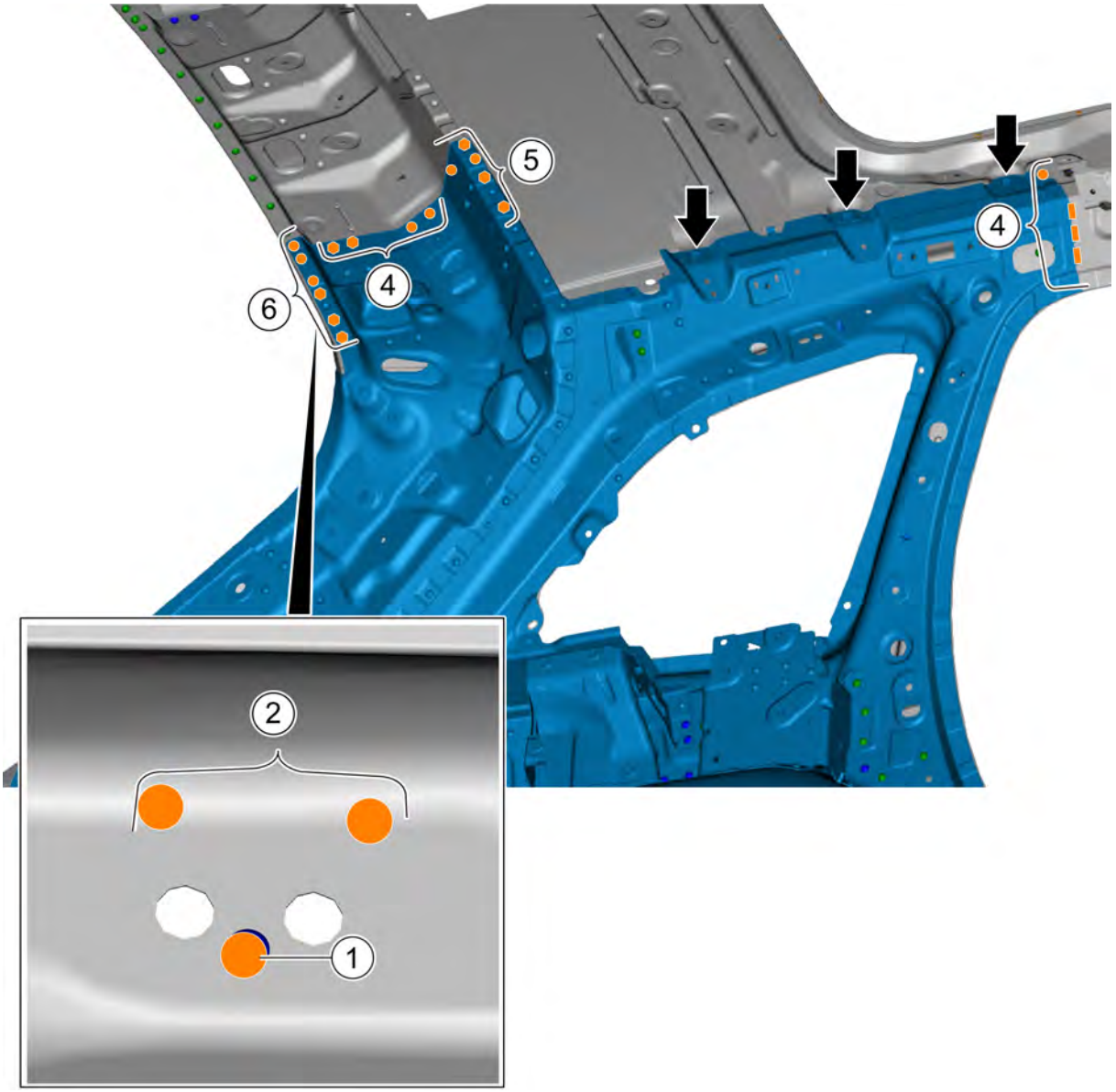
The removal method is the same for the left and right sides.

1. Remove the left side wall outer panel. Refer to Removal of left side wall outer panel.
2. Remove the rear water slot assembly of the left side wall. Refer to Removal of rear water slot assembly of the left side wall.
3. Remove the assembly-tail lamp mounting plate, refer to Remove of assembly-tail lamp mounting plate LH.
4. After drilling holes at the welding spots shown in the figure below, remove the fixing points between the rear pillar assembly LH and the rear floor assembly and the upper crossmember assembly rear floor.

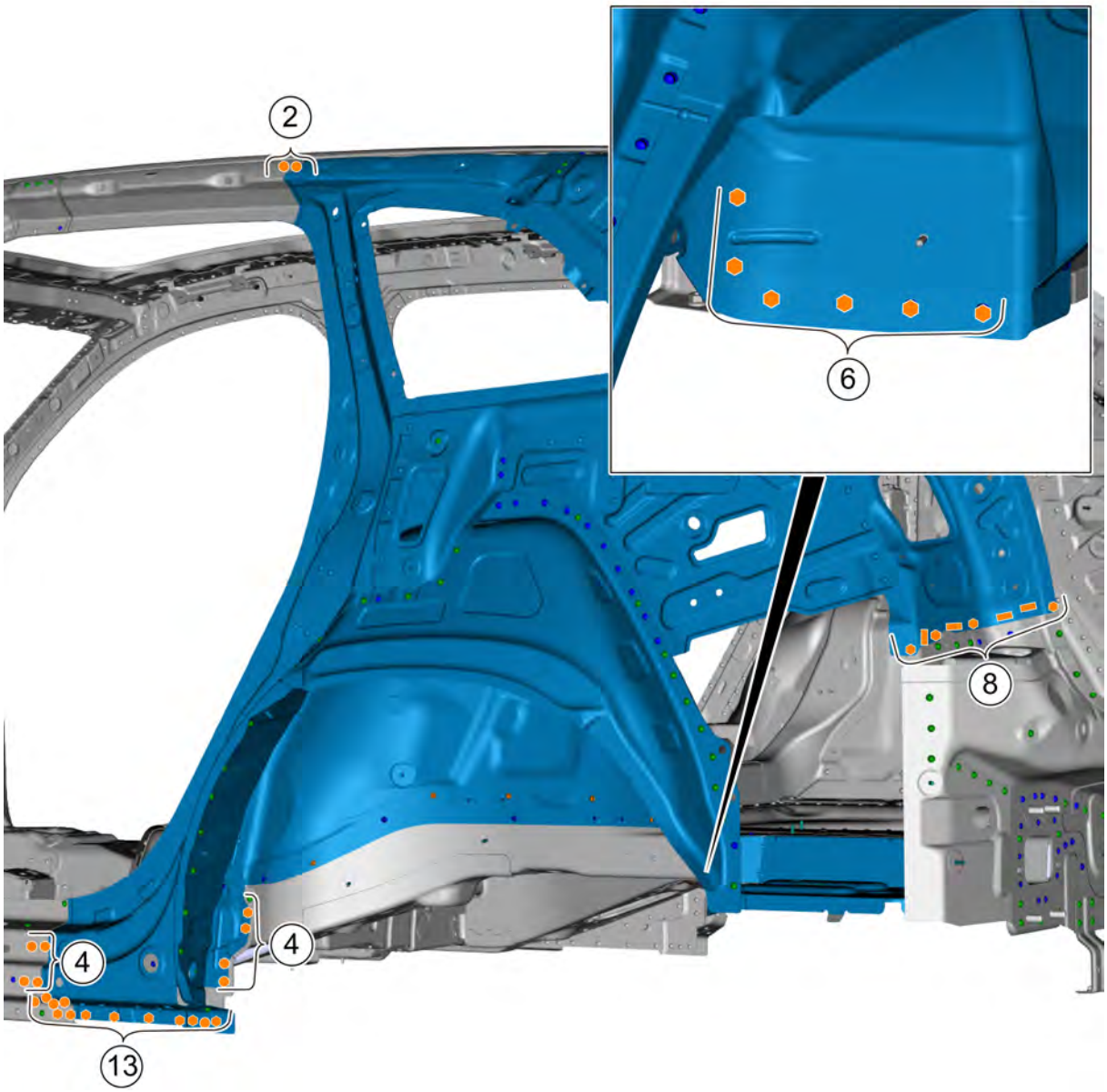


5. After drilling holes at the welding spots shown in the figure below, remove the fixing points between the rear pillar assembly LH and the rear crossmember assembly of the roof.

6. Remove the fixing bolt arrow of the left rear pillar assembly and the roof assembly as shown in the figure below.



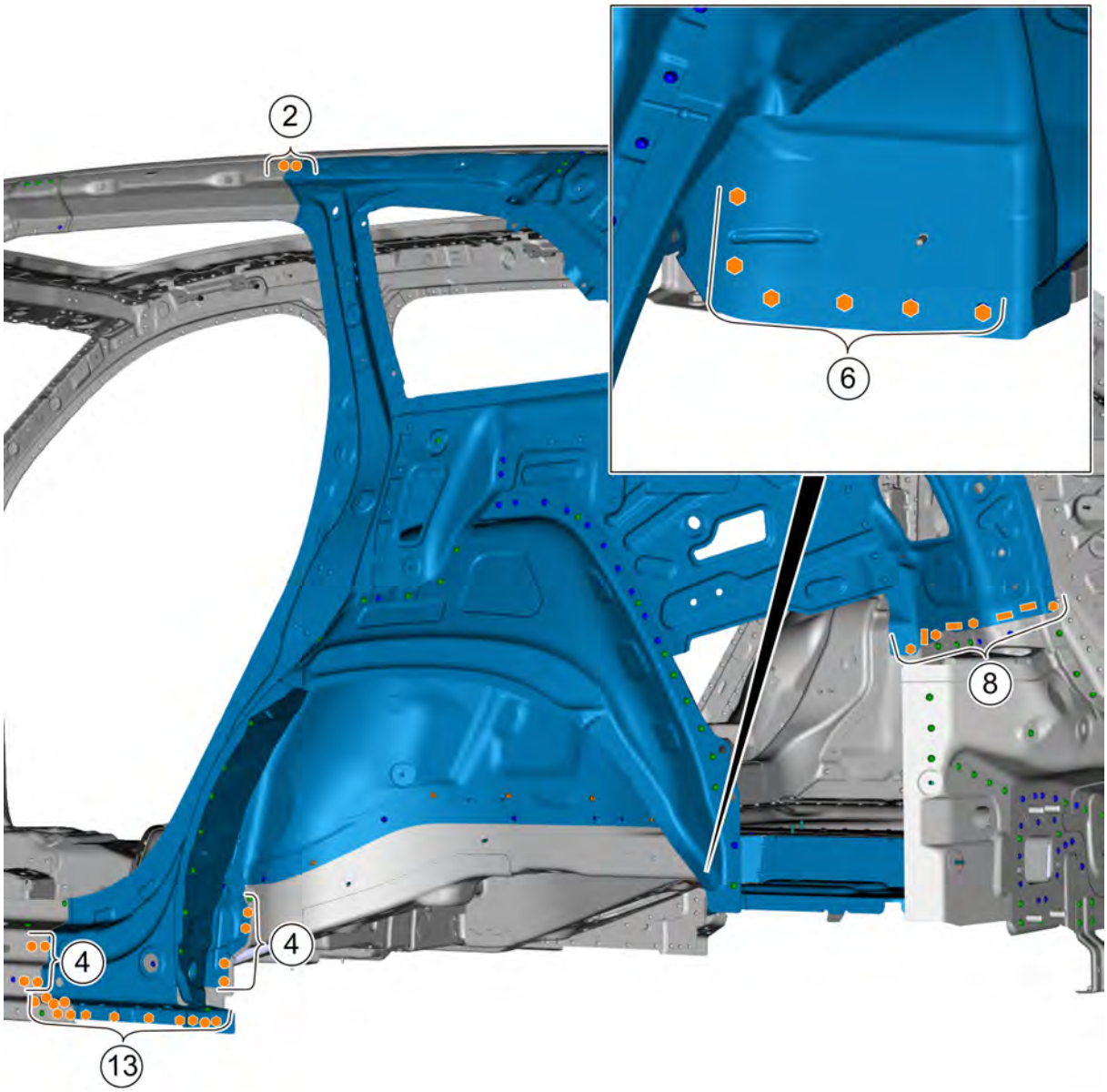
7. After drilling holes at the welding spots shown in the figure below, remove the fixing points between the assembly-rear pillar LH and the left door sill inner plate assembly and the rear wall panel assembly.



4.2.20 Mounting of assembly-rear pillar LH

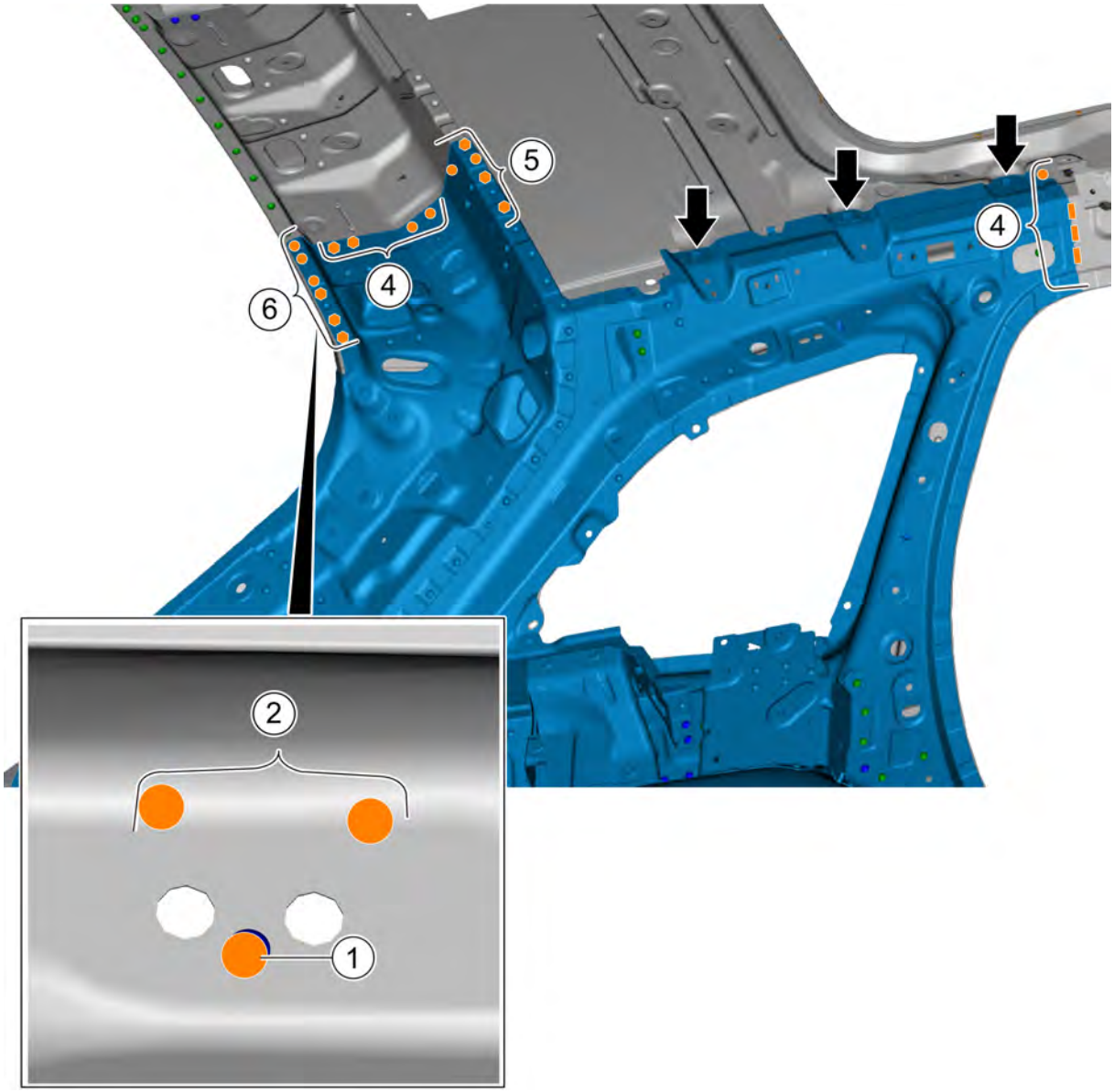
4.2.20.1 Mounting of assembly-rear pillar LH

1. When mounting new parts, measure and adjust the body as needed to meet standard dimensions.
2. After temporarily mounting new parts, make sure that the related parts are properly connected.
3. Mount the fixing points between the rear pillar assembly LH and the left door sill inner plate assembly and the rear wall panel assembly.

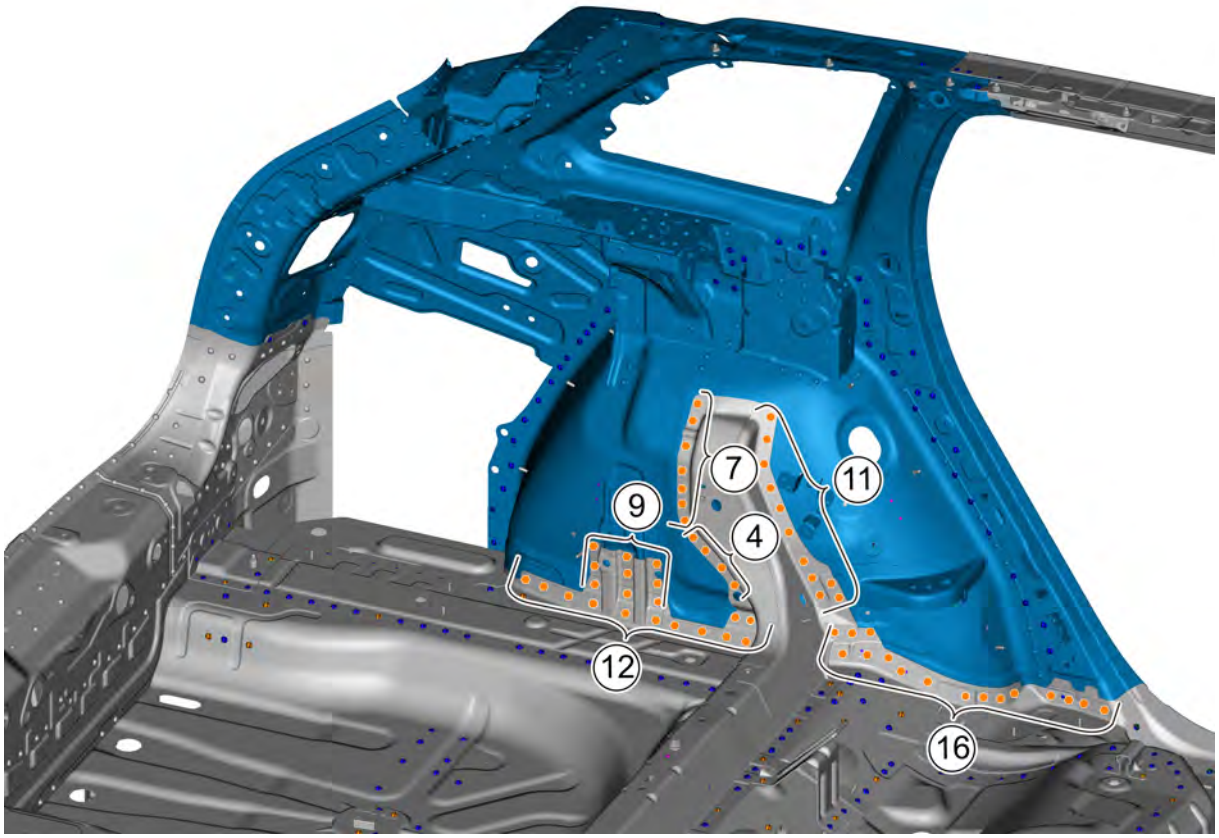


4. Mount the fixing points between the rear pillar assembly LH and the rear crossmember assembly of the roof.

5. Mount the fixing bolt arrow of the left rear pillar assembly and the roof assembly.



6. Mount the fixing points between the RL pillar assembly and the rear floor assembly and the rear floor upper beam assembly.



7. Mount the left taillight mounting plate assembly.

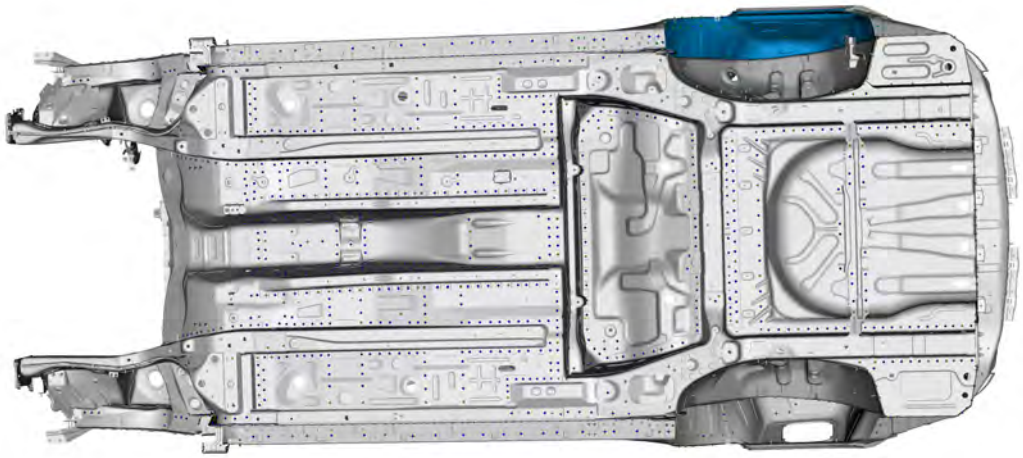
8. Mount the rear water slot assembly of the left side wall.

9. Mount the left body side outer panel.

4.2.21 Removal of the left rear wheel housing outer plate assembly

4.2.21.1 Removal of the left rear wheel housing outer plate assembly

Positions of components in the vehicle

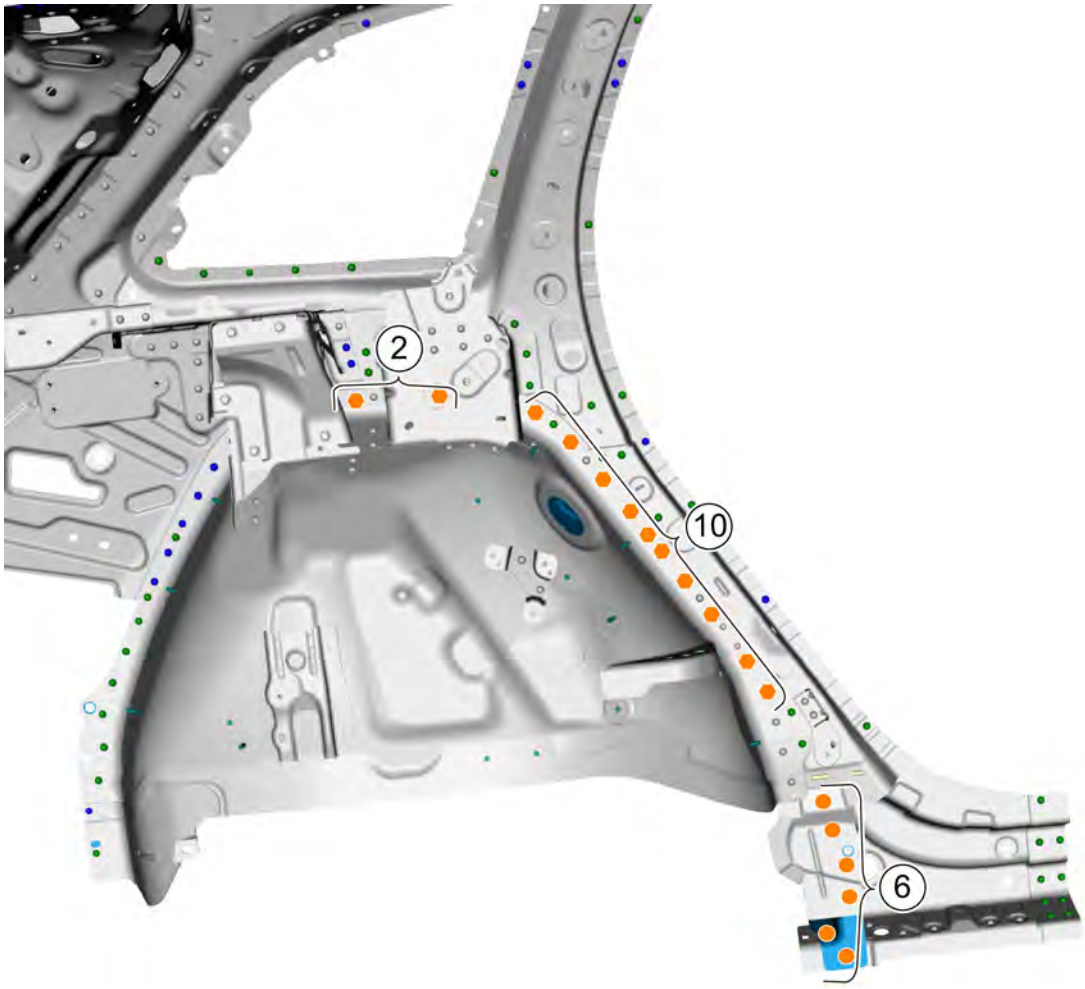


Component Disassembly

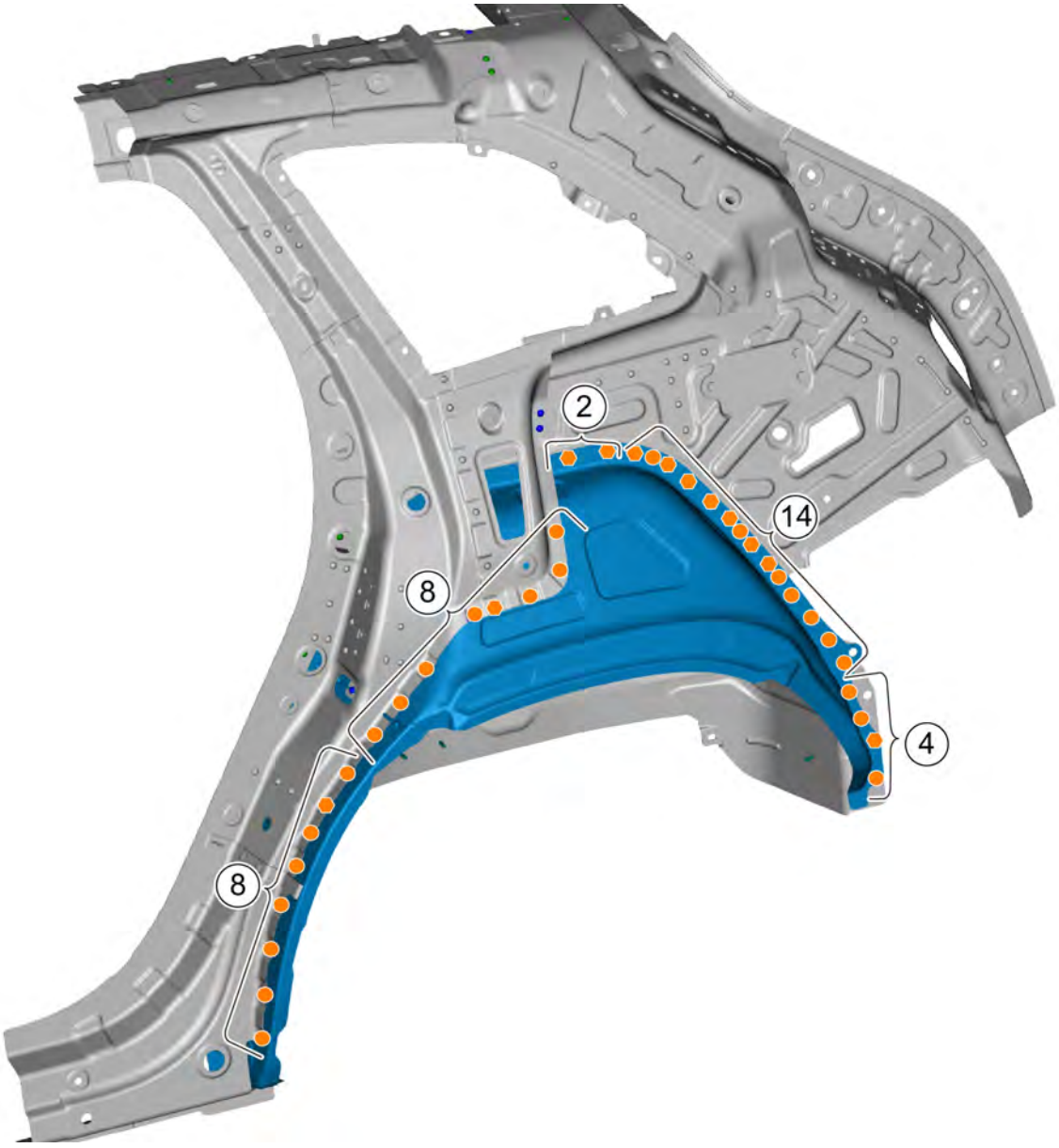
Caution

The removal method is the same for the left and right sides.

1. Remove the left side wall outer panel. Refer to Removal of left side wall outer panel.
2. Remove rear left pillar assembly. Refer to Removal of rear left pillar assembly.
3. After drilling holes at the welding spots shown in the figure below, remove the fixing points between the rear wheel housing outer plate assembly LH and the right side of rear wheel housing assembly.



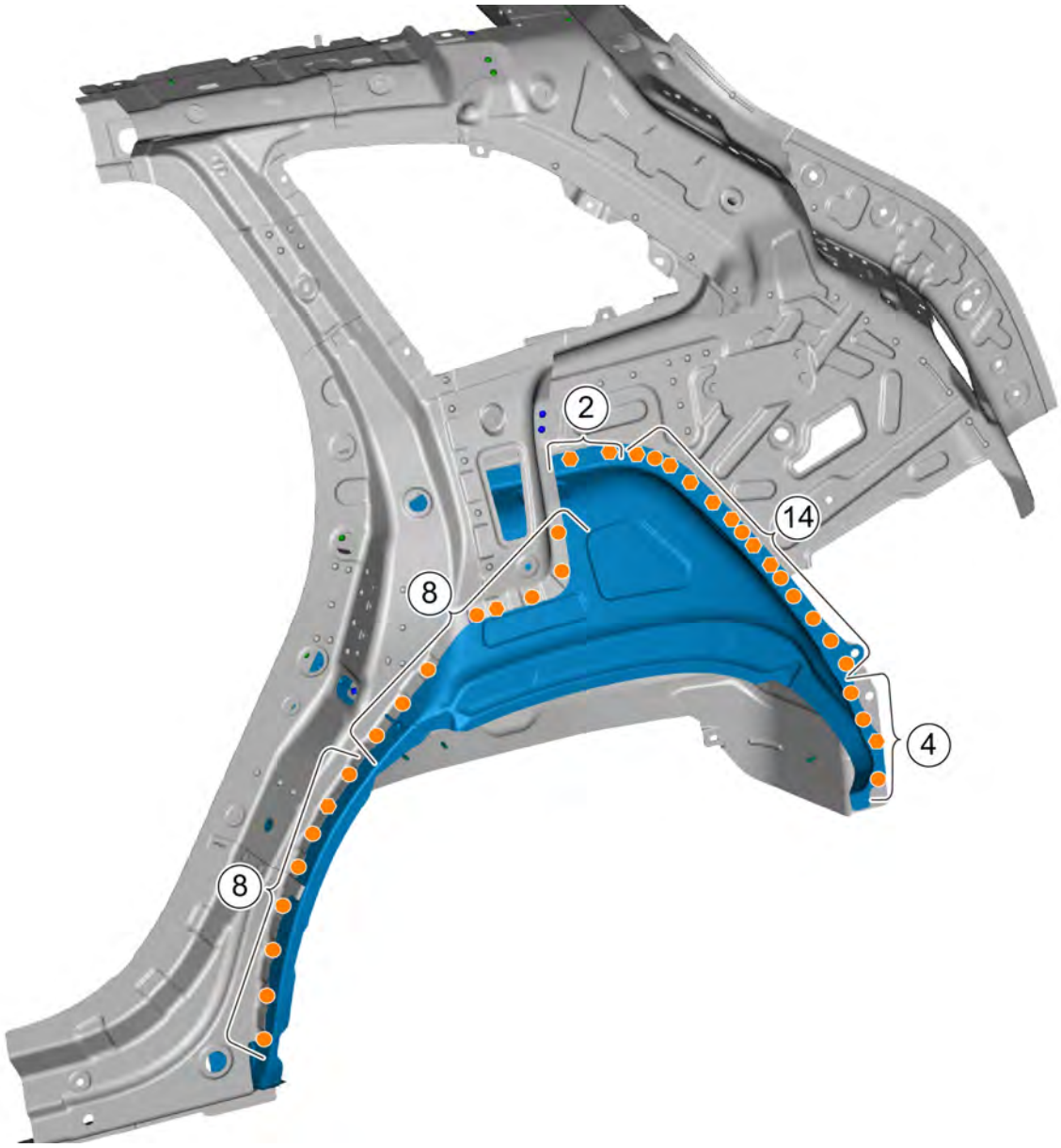
4. After drilling holes at the welding spots shown in the figure below, remove the left fixing points between the rear wheel housing outer plate assembly LH and the rear wheel housing assembly.



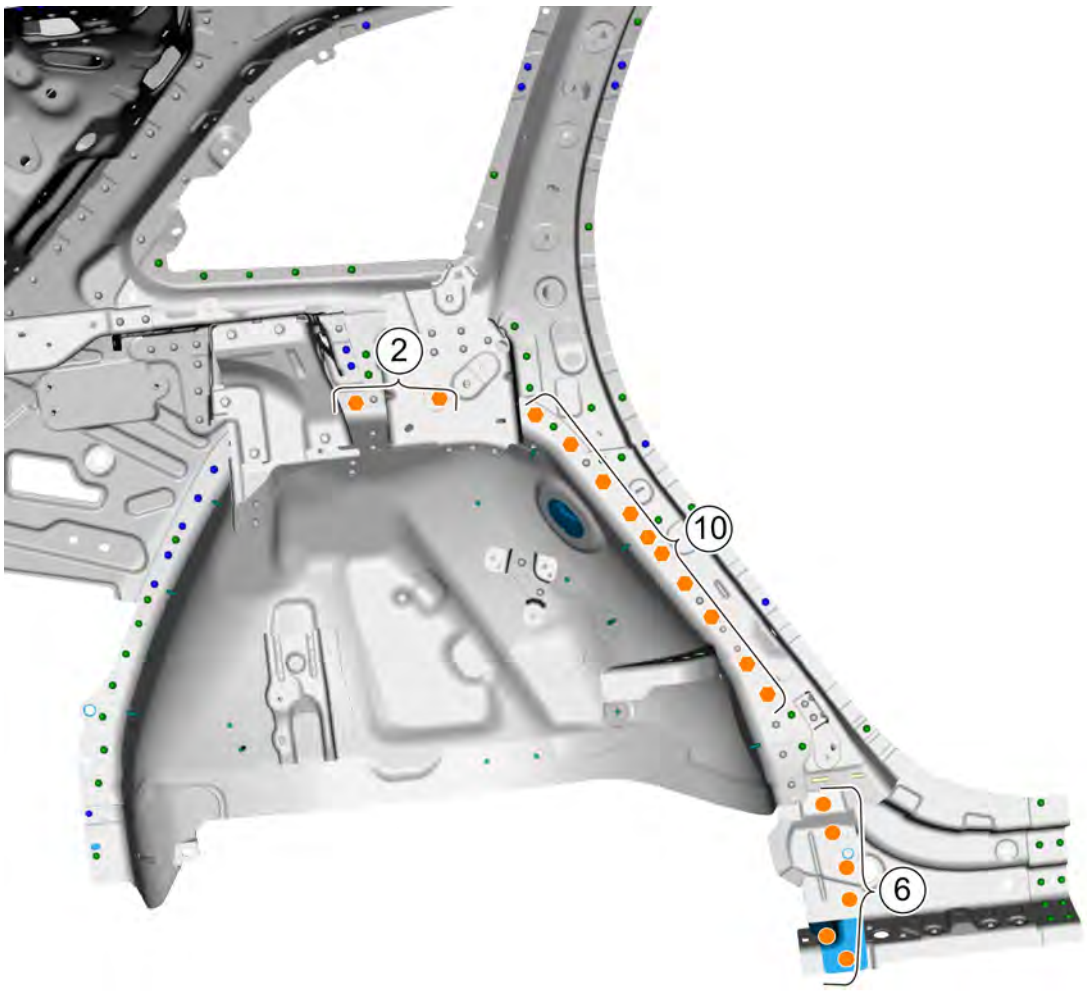
4.2.22 Mounting of left rear wheel housing outer plate assembly

4.2.22.1 Mounting of left rear wheel housing outer plate assembly

1. When mounting new parts, measure and adjust the body as needed to meet standard dimensions.
2. After temporarily mounting new parts, make sure that the related parts are properly connected.
3. Mount the fixing points between the assembly-rear wheel housing outer plate LH and the left side of rear wheel housing assembly.



4. Mount the fixing points between the assembly-rear wheel housing outer panel LH and the right side of the rear wheel housing assembly.



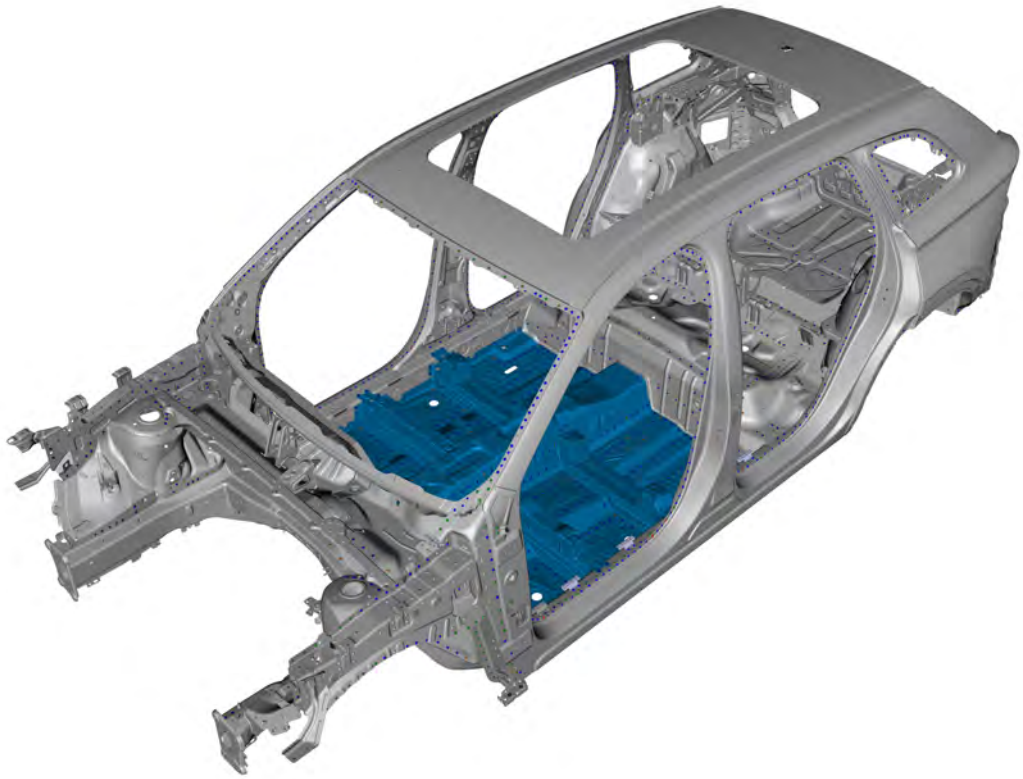
5. Mount the rear pillar assembly LH.

6. Mount the left body side outer panel.

4.2.23 Removal of front floor assembly

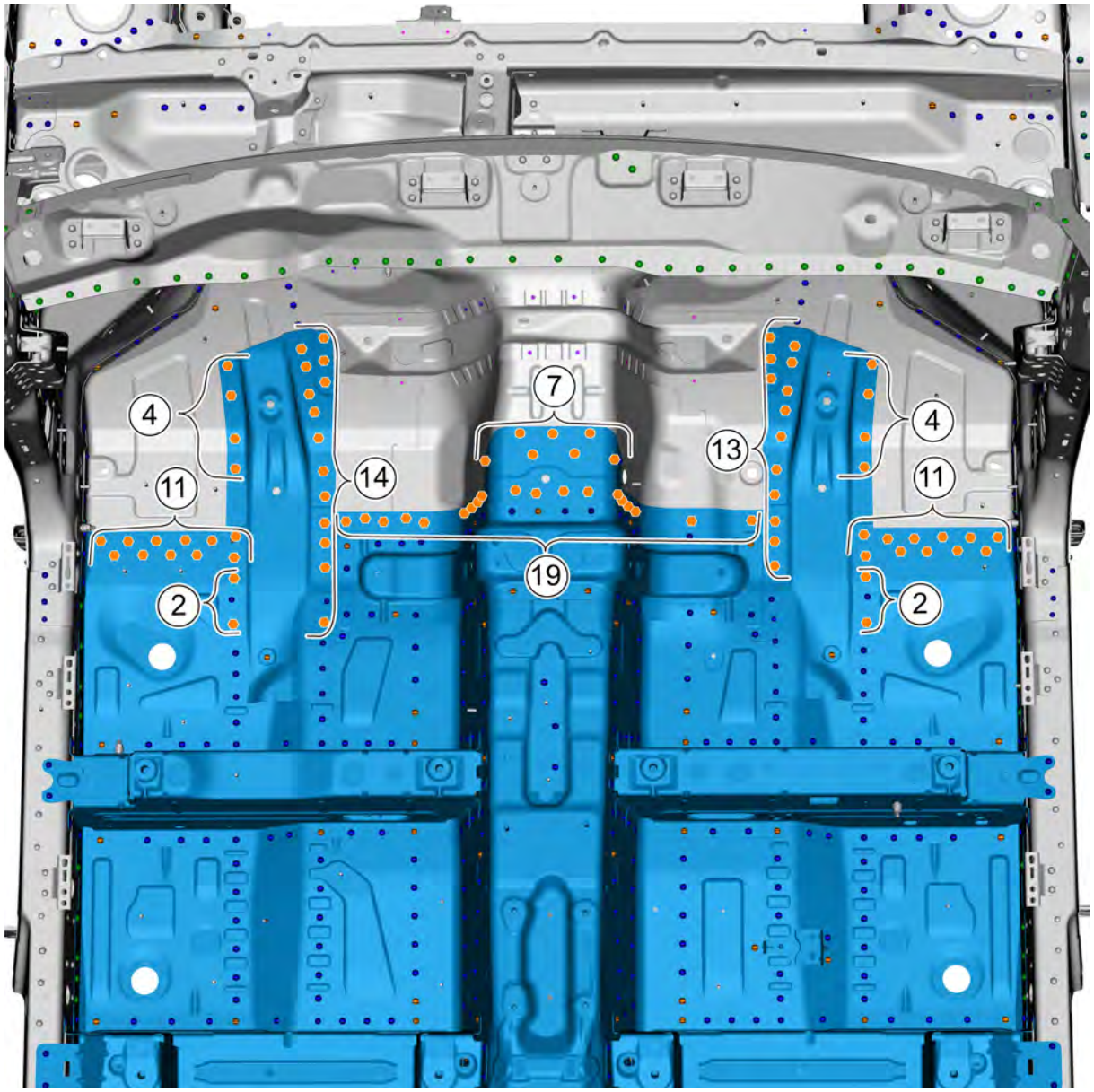
4.2.23.1 Removal of front floor assembly

Positions of components in the vehicle

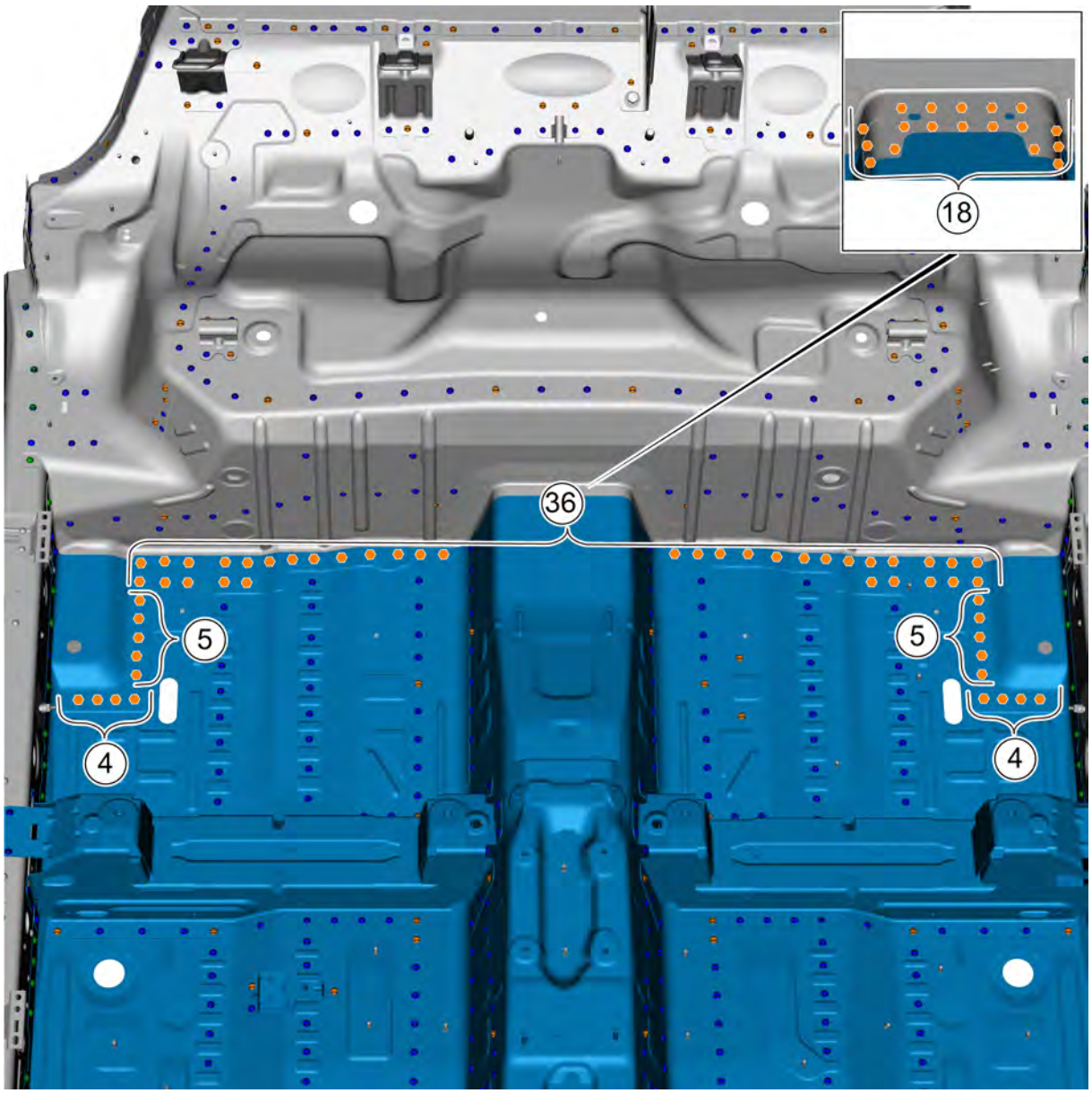


Component Disassembly

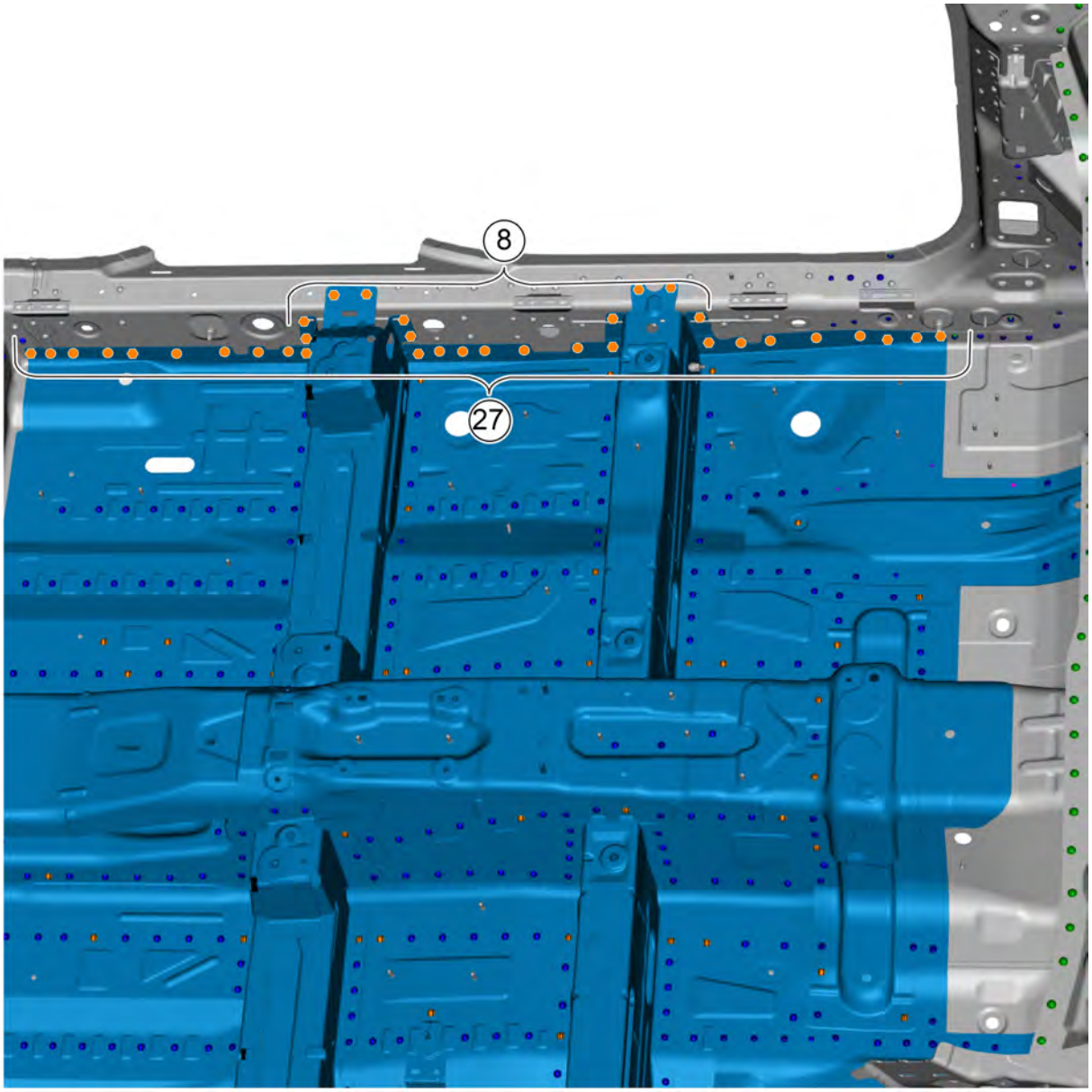
1. After drilling holes at the welding spots shown in the figure below, remove the fixing points between the front floor assembly middle and the engine compartment assembly.



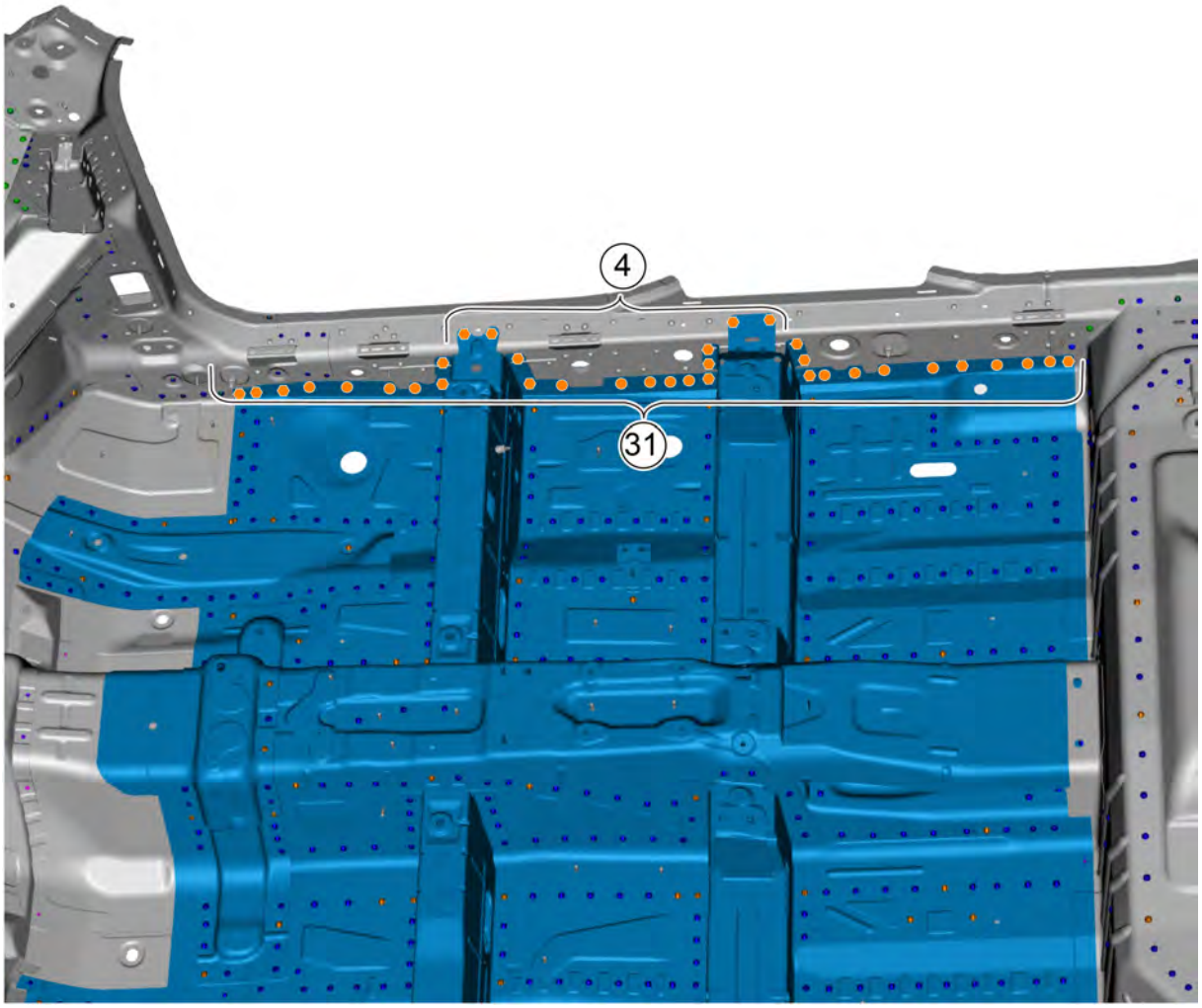
2. After drilling holes at the welding spots shown in the figure below, remove the fixing points between the front floor assembly and the rear floor assembly.



3. After drilling holes at the welding spots shown in the figure below, remove the fixing points between the front floor assembly and the rear floor assembly.



4. After drilling holes at the welding spots shown in the figure below, remove the fixing points between the front floor assembly and the rear floor assembly.



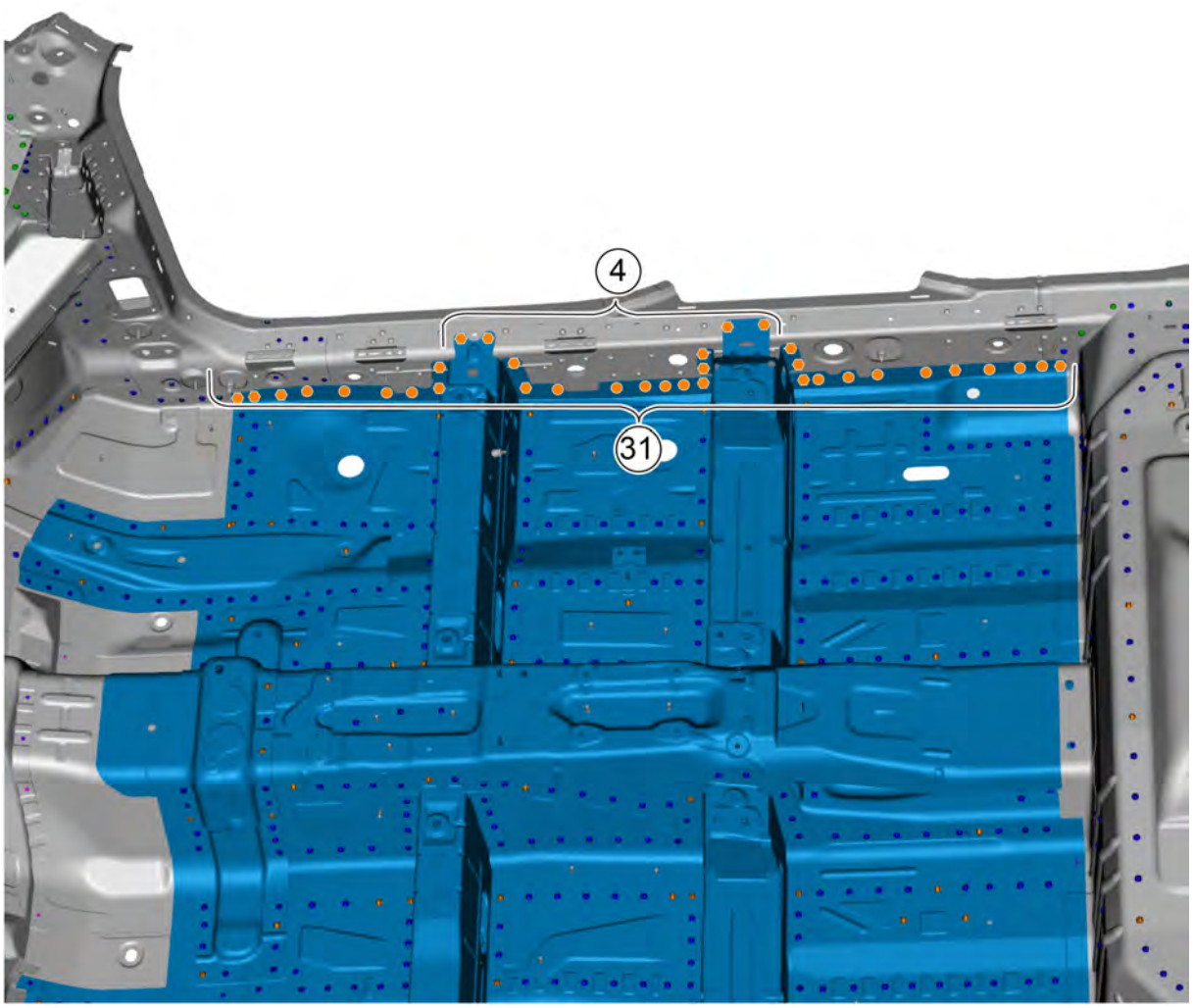
4.2.24 Mounting of front floor assembly

4.2.24.1 Mounting of front floor assembly

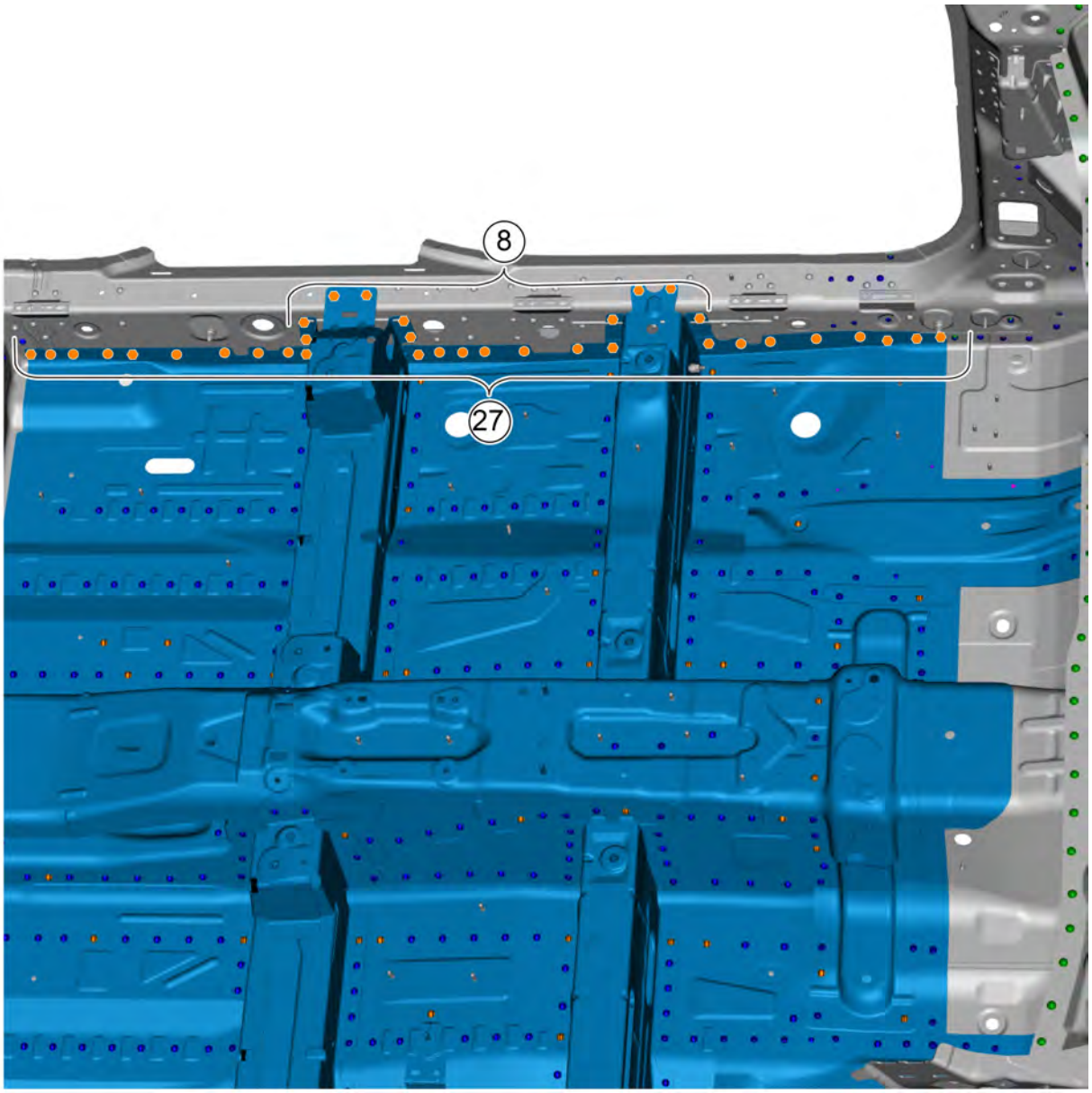
1. When mounting new parts, measure and adjust the body as needed to meet standard dimensions.

2. After temporarily mounting new parts, make sure that the related parts are properly connected.

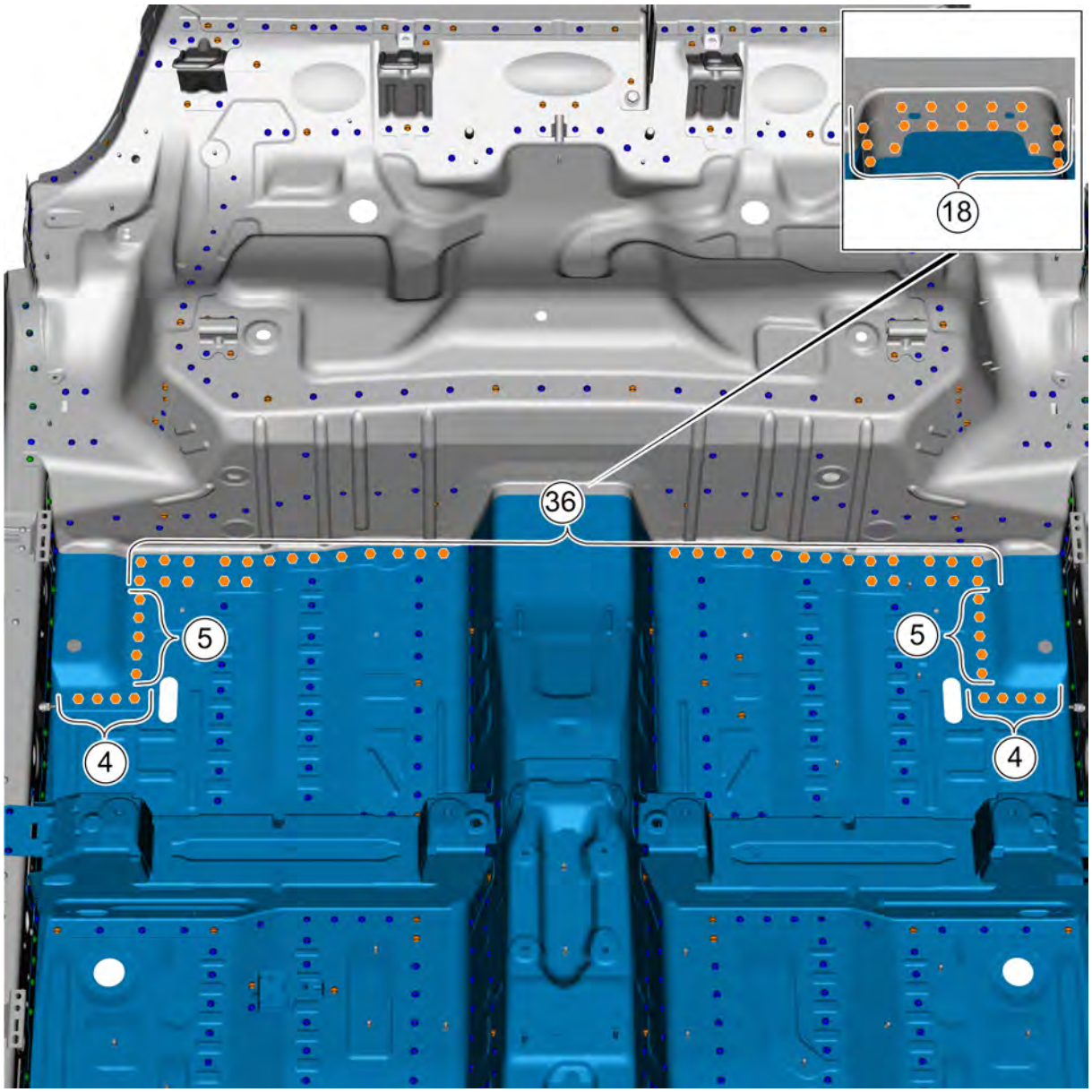
3. Mount the fixing points between the front floor assembly and the left door sill inner plate assembly.



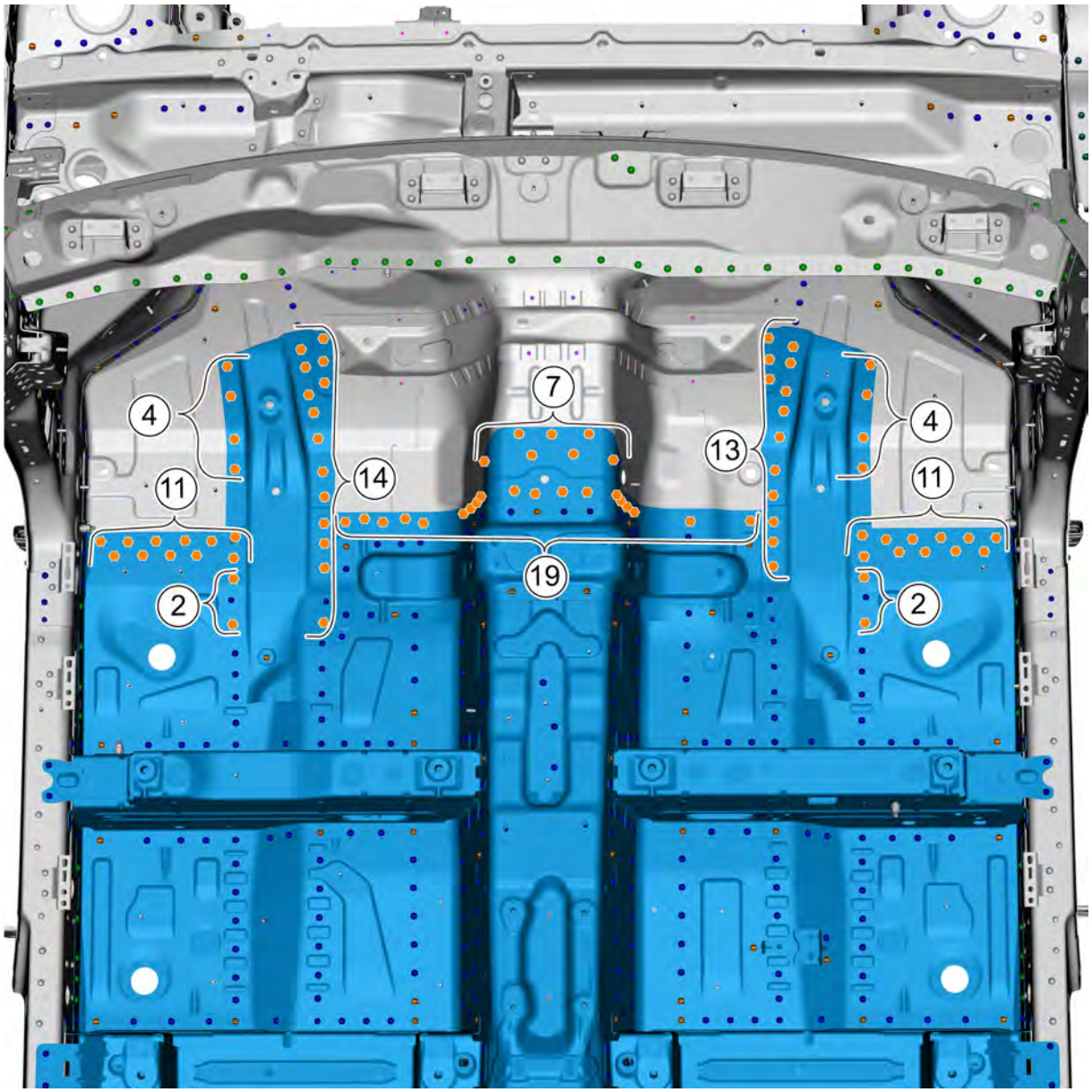
4. Mount the fixing points between the front floor assembly and the front floor assembly and the left door sill inner plate assembly.



5. Mount the fixing points between the front floor assembly and the middle floor.



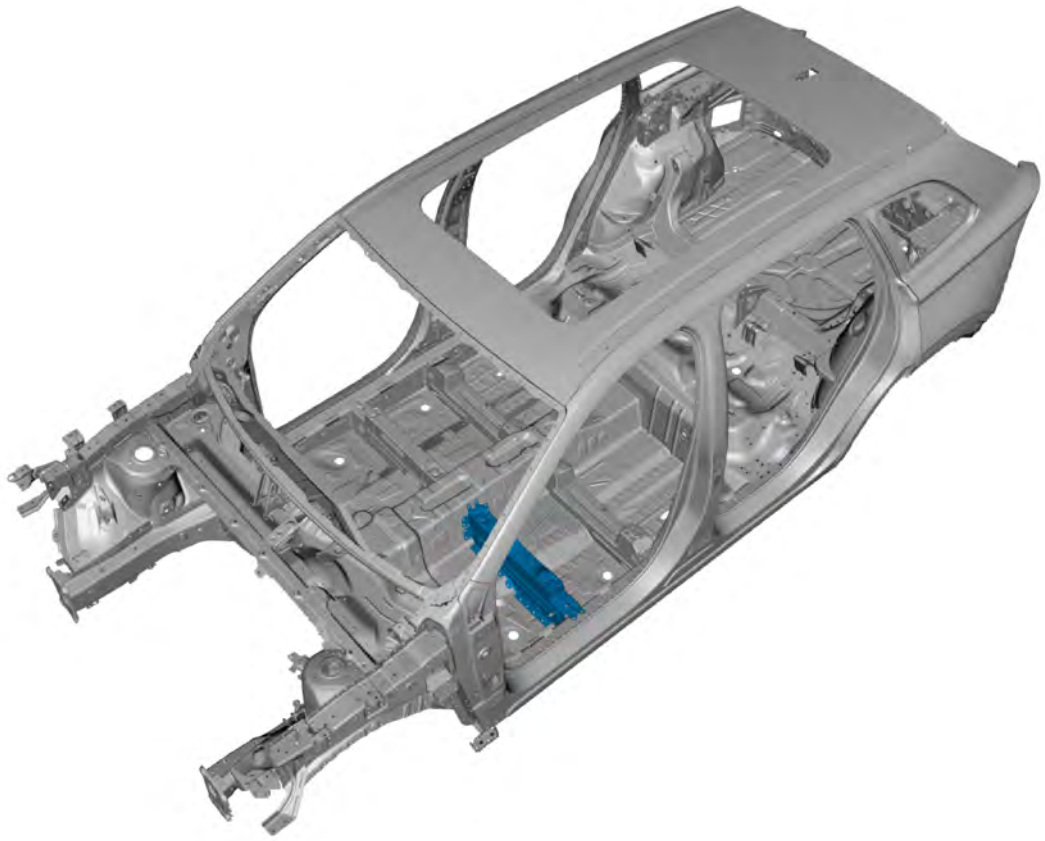
6. Mount the fixing points between both sides of the front floor assembly and the engine compartment assembly.



4.2.25 Removal of front mounting cross beam assembly for front left seat

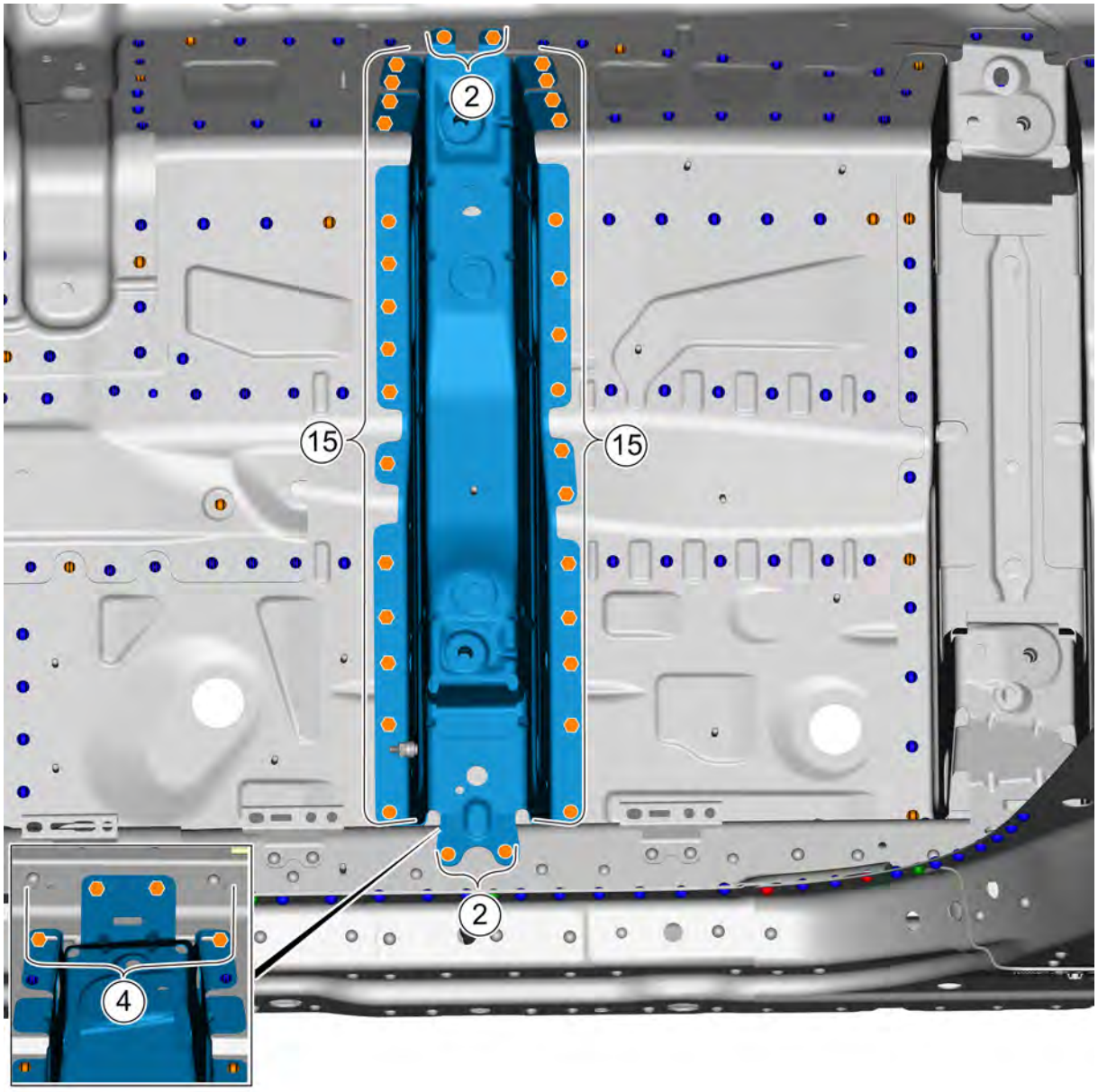
4.2.25.1 Removal of front mounting cross beam assembly for front left seat

Positions of components in the vehicle



Component Disassembly

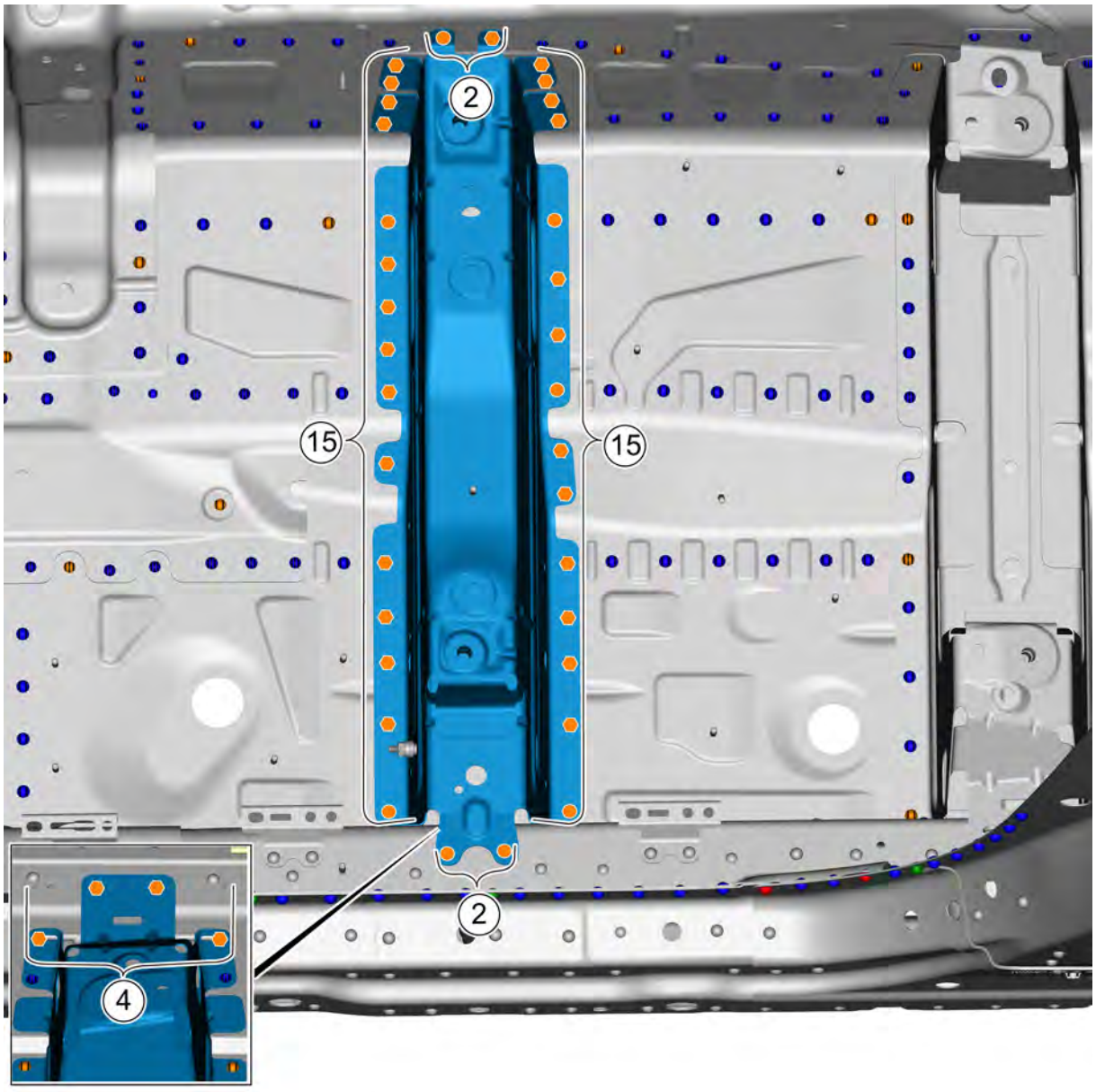
1. After drilling holes at the welding spots shown in the figure below, remove the fixing points between the front mounting cross beam assembly for front left seat and the front floor assembly.



4.2.26 Mounting of front mounting cross beam assembly for front left seat

4.2.26.1 Mounting of front mounting cross beam assembly for front left seat

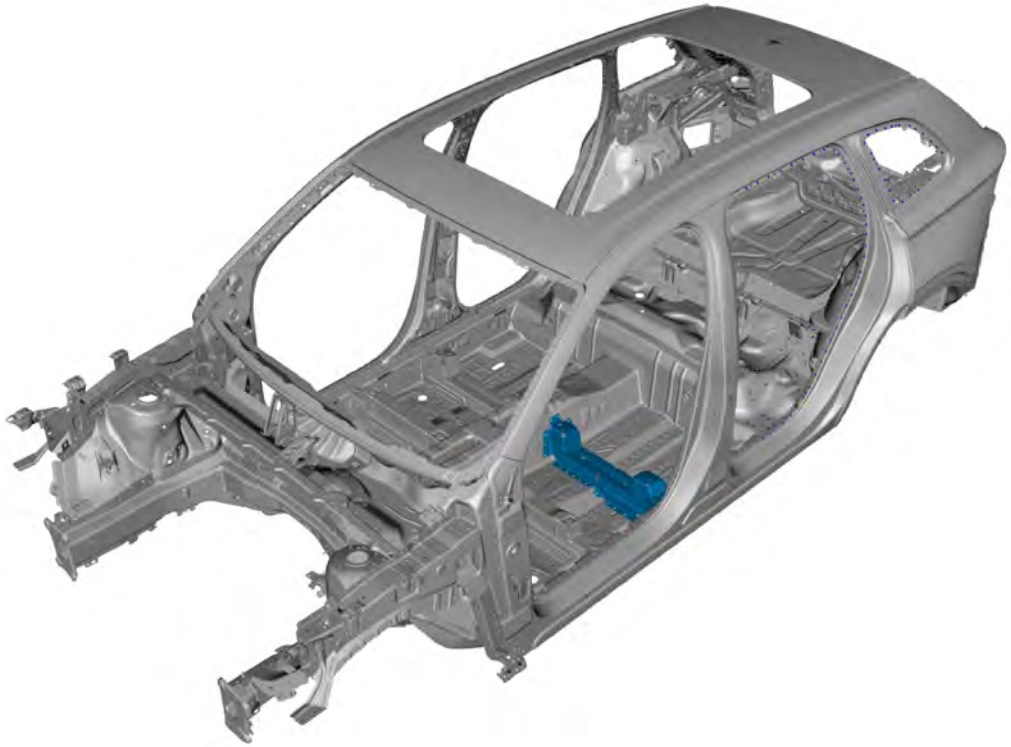
1. When mounting new parts, measure and adjust the body as needed to meet standard dimensions.
2. After temporarily mounting new parts, make sure that the related parts are properly connected.
3. Mount the fixing points between the front cross beam assembly for front left seat and the front floor assembly & the left side wall assembly.



4.2.27 Removal of rear mounting cross beam assembly for front left seat

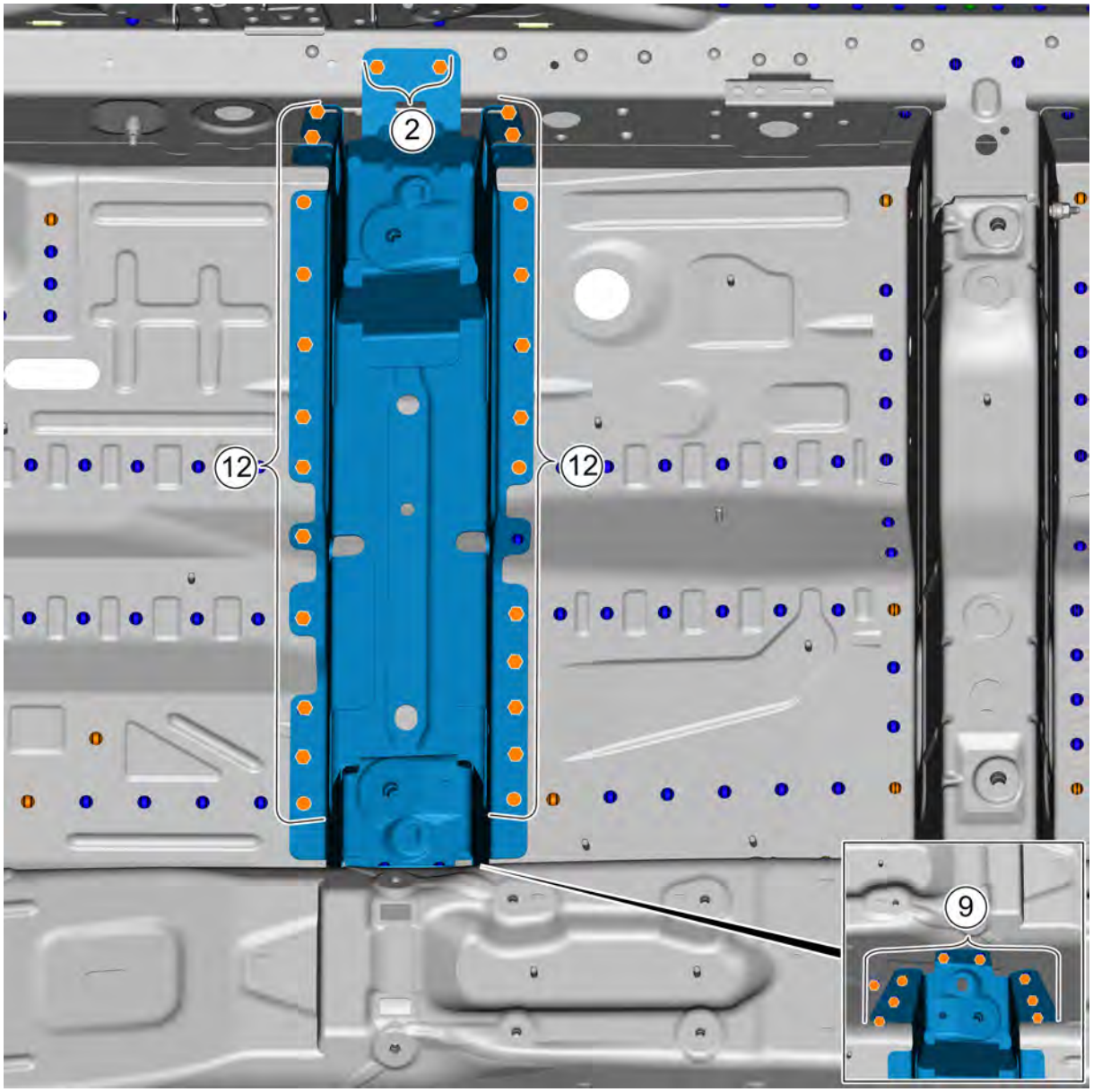
4.2.27.1 Removal of rear mounting cross beam assembly for front left seat

Positions of components in the vehicle



Component Disassembly

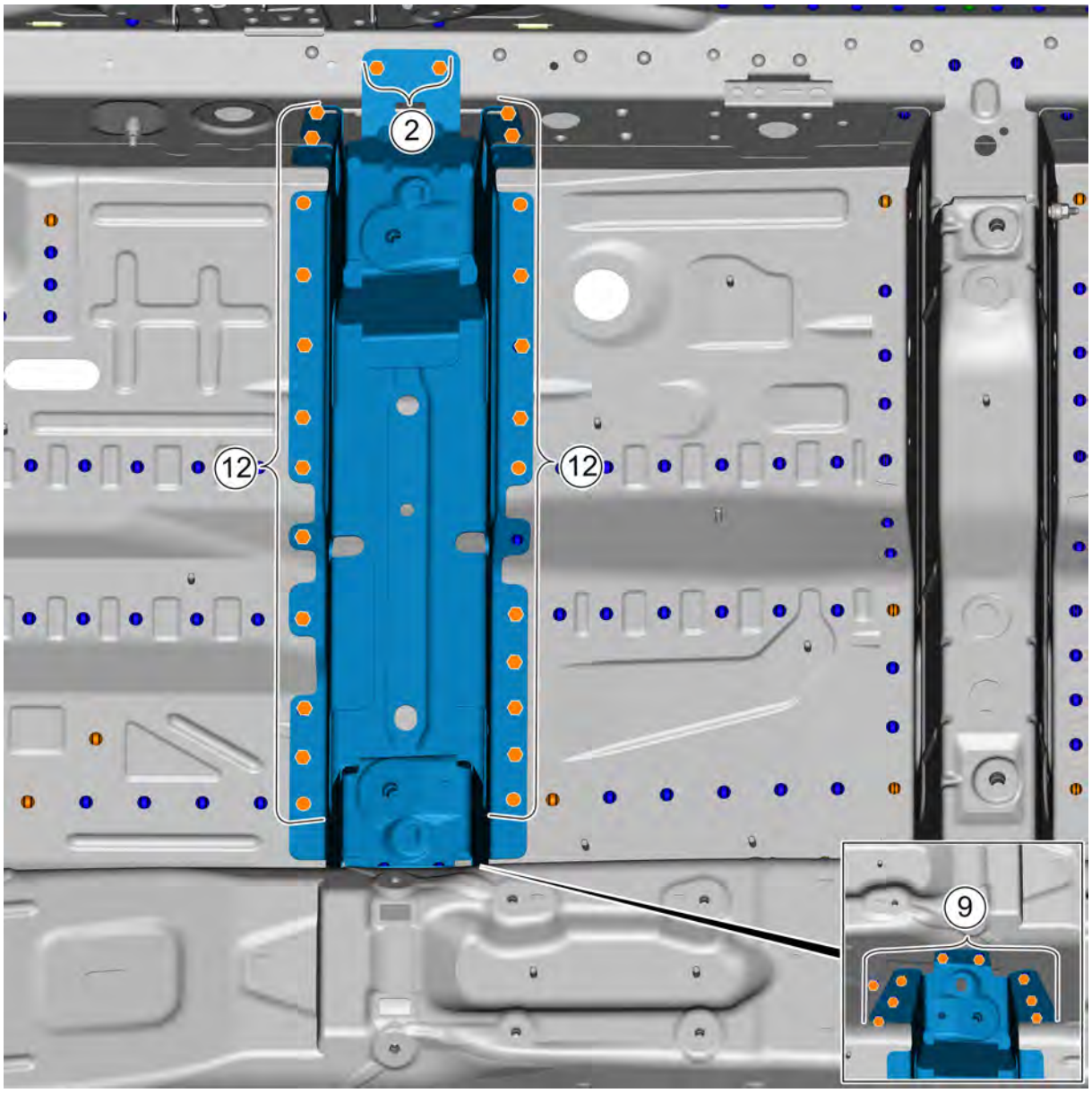
1. After drilling holes at the welding spots shown in the figure below, remove the fixing points between the rear mounting cross beam assembly for front left seat and the front floor assembly.



4.2.28 Mounting of rear mounting cross beam assembly for front left seat

4.2.28.1 Mounting of rear mounting cross beam assembly for front left seat

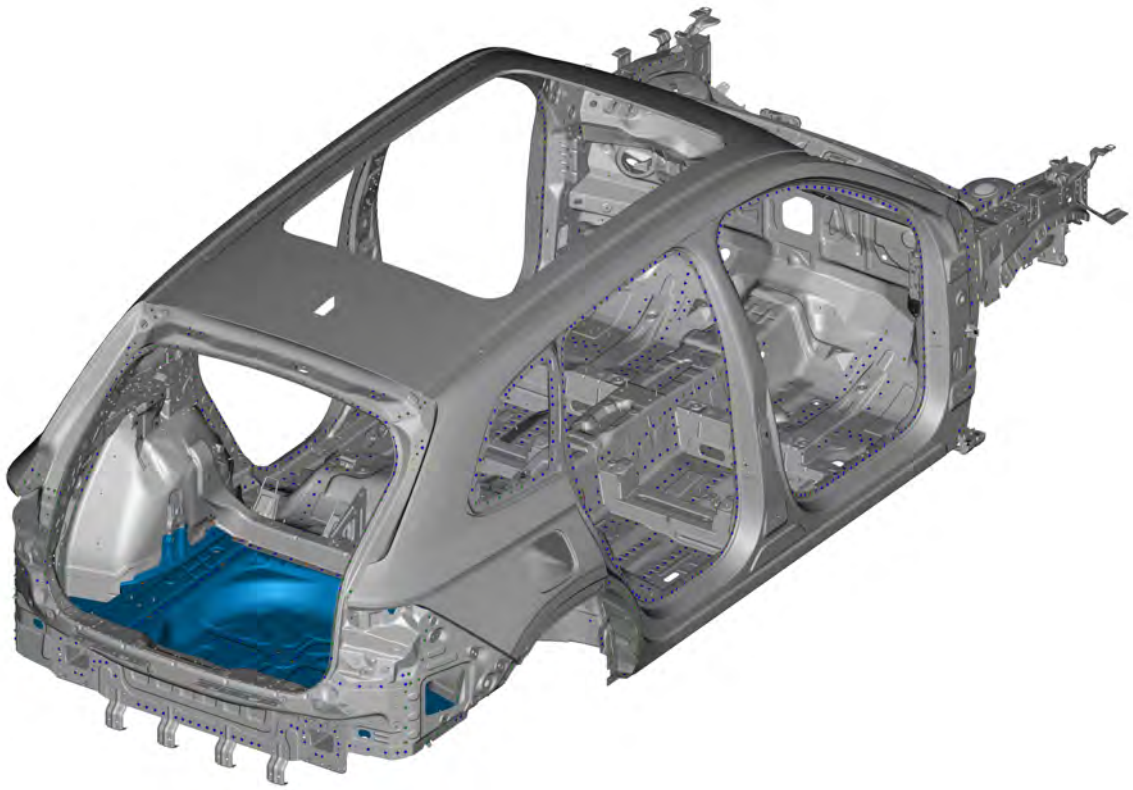
1. When mounting new parts, measure and adjust the body as needed to meet standard dimensions.
2. After temporarily mounting new parts, make sure that the related parts are properly connected.
3. Mount the fixing points between the rear mounting front left seat rear crossmember assembly and the front floor assembly & the left side wall assembly.



4.2.29 Removal of rear floor assembly

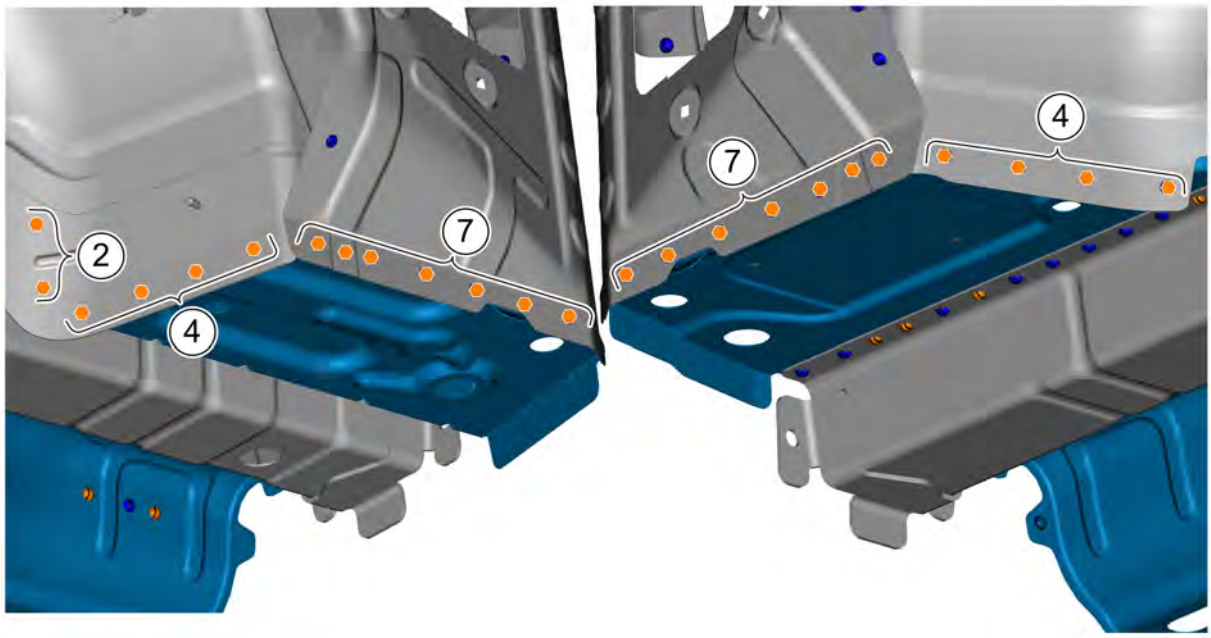
4.2.29.1 Removal of rear floor assembly

Positions of components in the vehicle

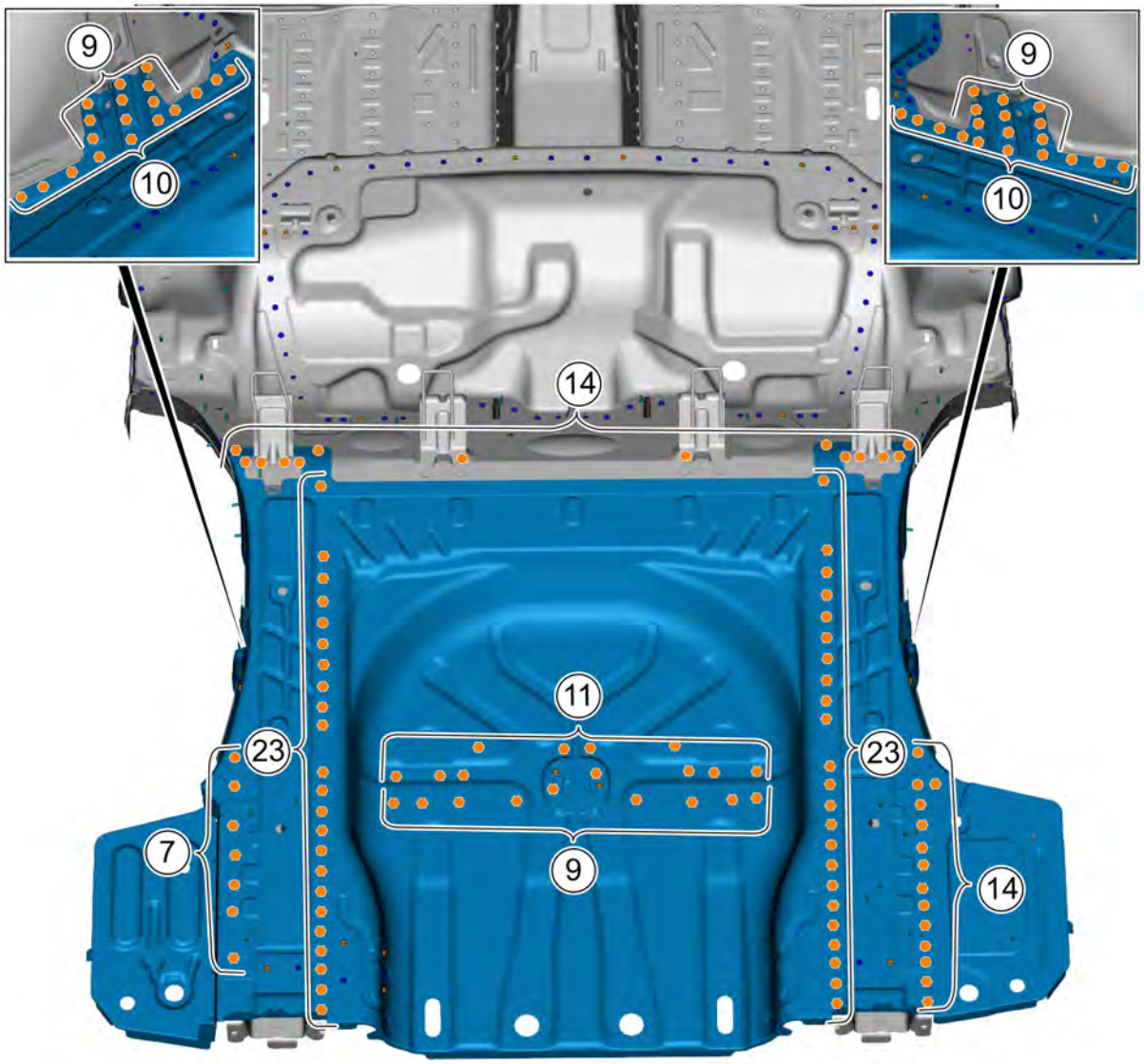


Component Disassembly

1. To remove the rear wall panel assembly, please refer to "Removal of rear wall panel assembly".
2. Remove the upper crossmember assembly rear floor. Refer to Removal of upper crossmember assembly rear floor.
3. After drilling holes at the welding spots shown in the figure below, remove the fixing points between the rear floor assembly and the rear wall assembly.



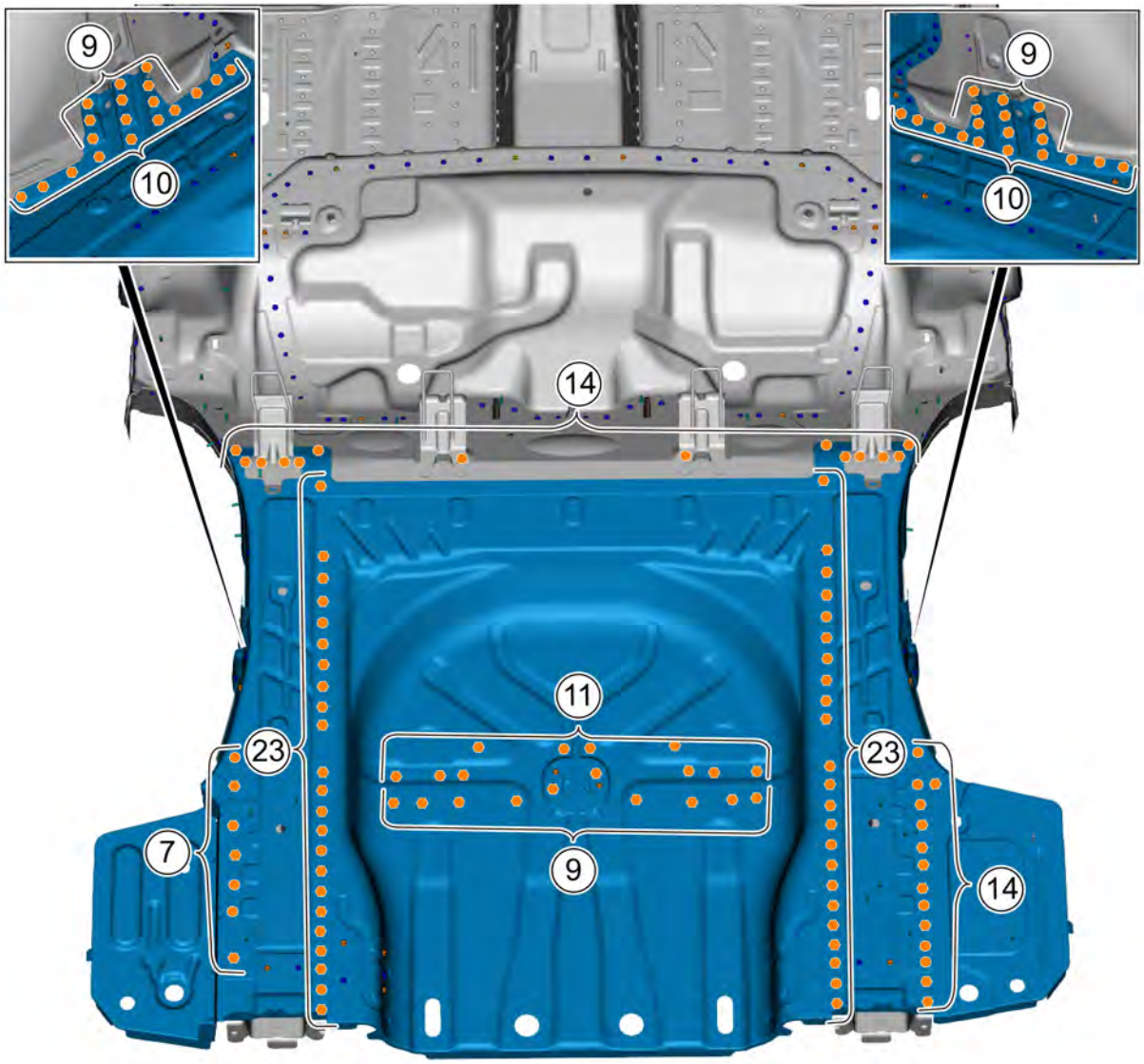
4. After drilling holes at the welding spots shown in the figure below, remove the fixing points between the rear floor assembly and the rear wheel cover assembly, the rear floor side member assembly, and the spare tire compartment reinforcement beam.



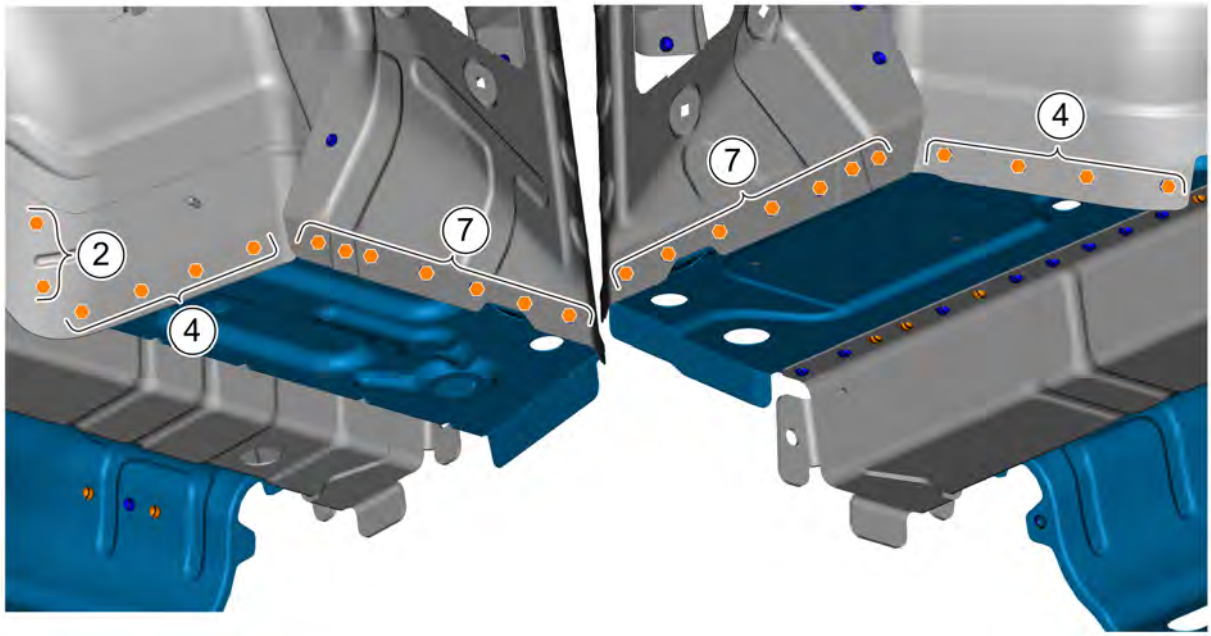
4.2.30 Mounting of rear floor assembly

4.2.30.1 Mounting of rear floor assembly

1. When mounting new parts, measure and adjust the body as needed to meet standard dimensions.
2. After temporarily mounting new parts, make sure that the related parts are properly connected.
3. Mount the fixing points between the rear floor assembly and the rear wheel cover assembly, the rear floor side member assembly, and the spare tire compartment reinforcement beam.



4. Mount the fixing points between the rear floor assembly and the left and right rear wheel housing assemblies.



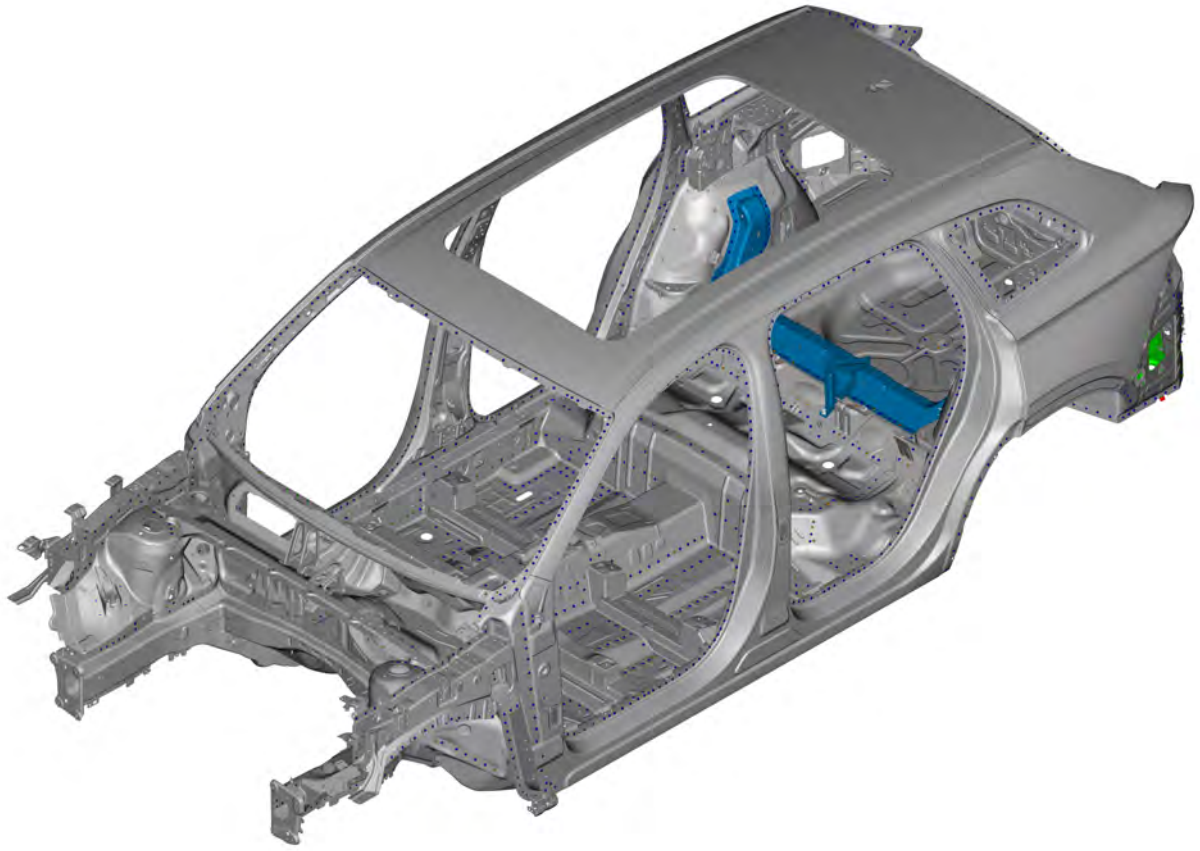
5. Mount the rear floor upper beam assembly.

6. Mount the rear wall panel.

4.2.31 Removal of Upper Rear Floor Beam Assembly

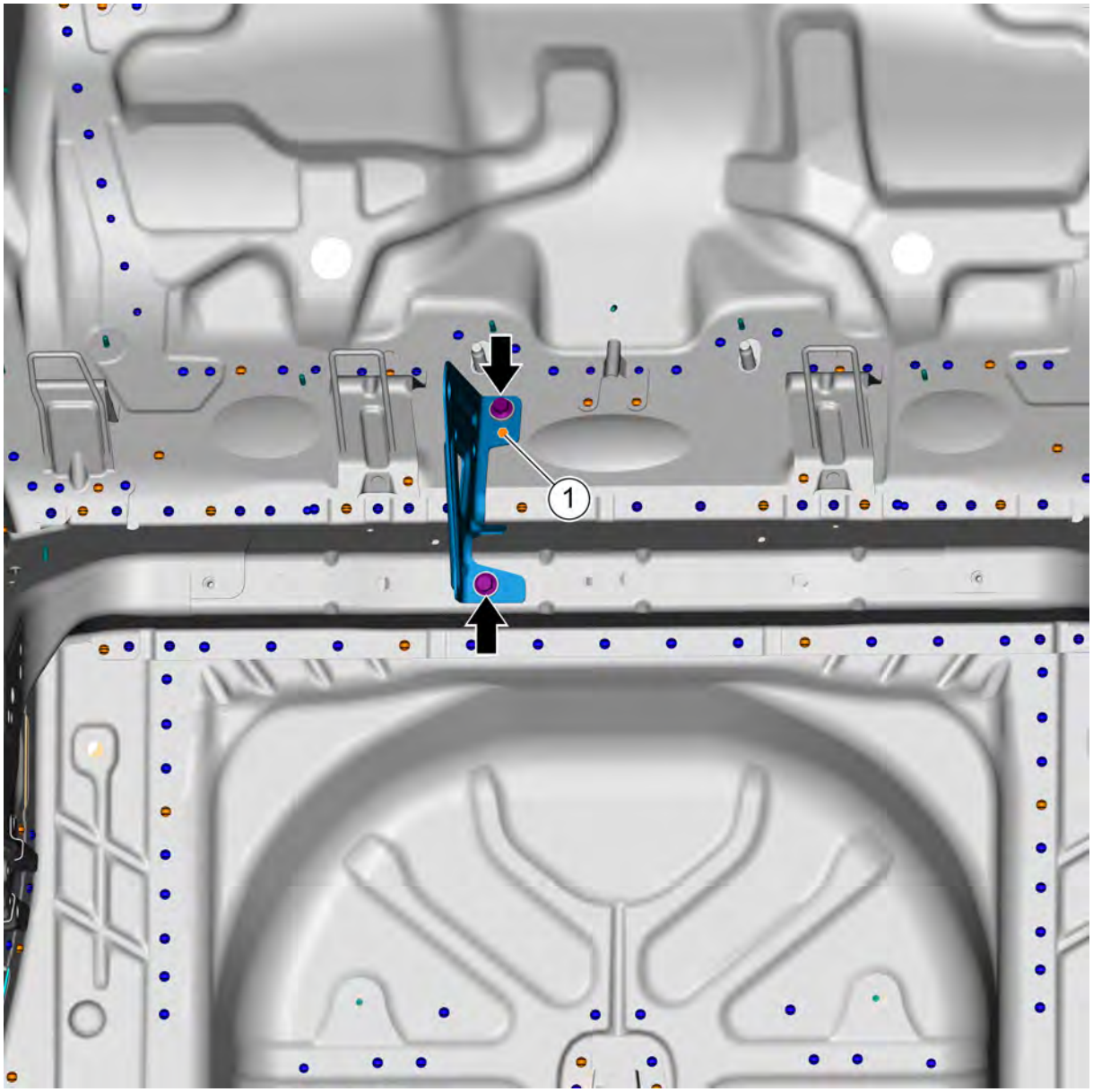
4.2.31.1 Removal of Upper Rear Floor Beam Assembly

Positions of components in the vehicle

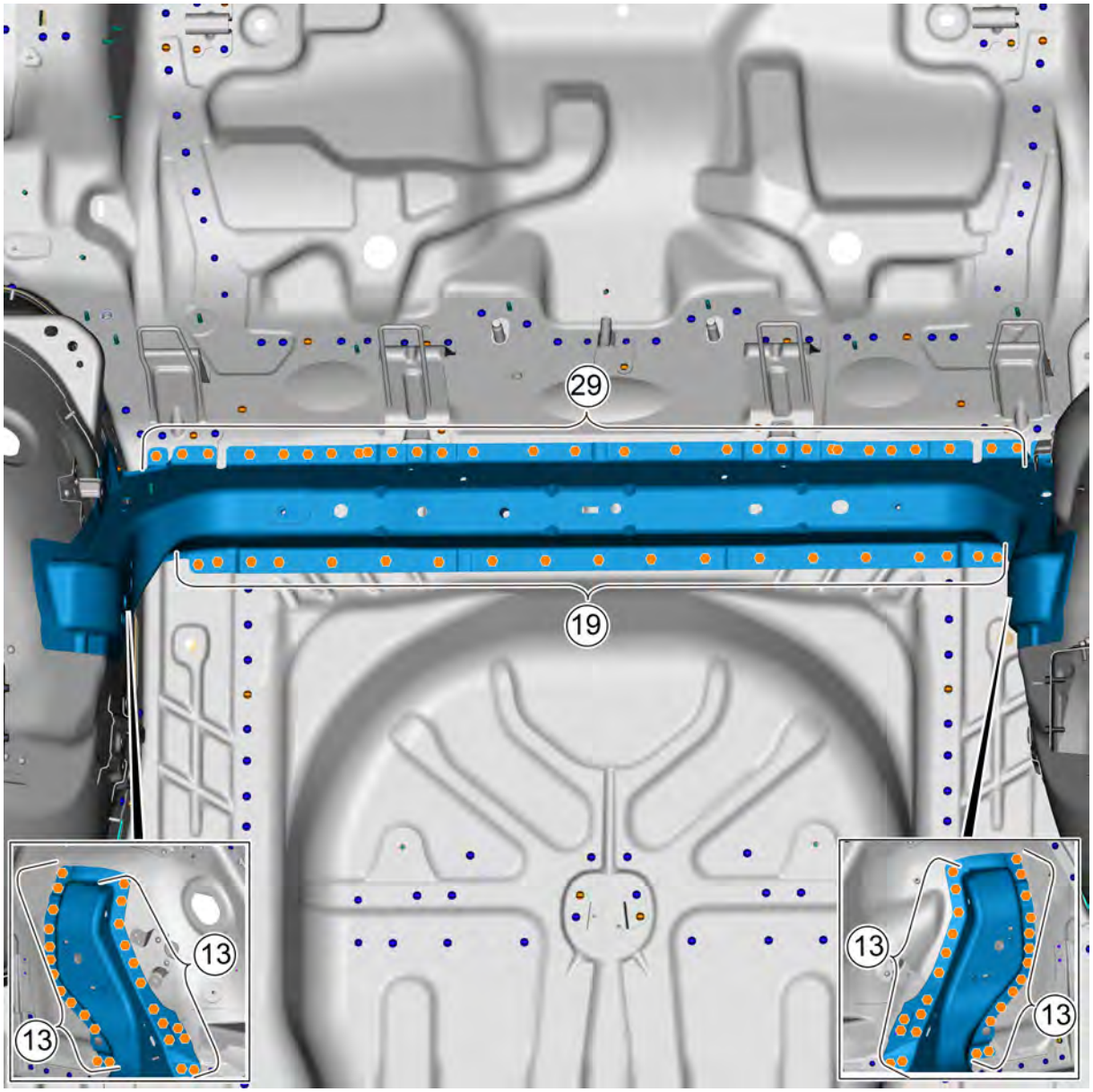


Component Disassembly

1. After drilling holes at the welding spots shown in the figure below, remove the fixing points and fixing bolt arrows of the mounting bracket in the rear seat and the middle floor and upper rear floor crossmember assembly.



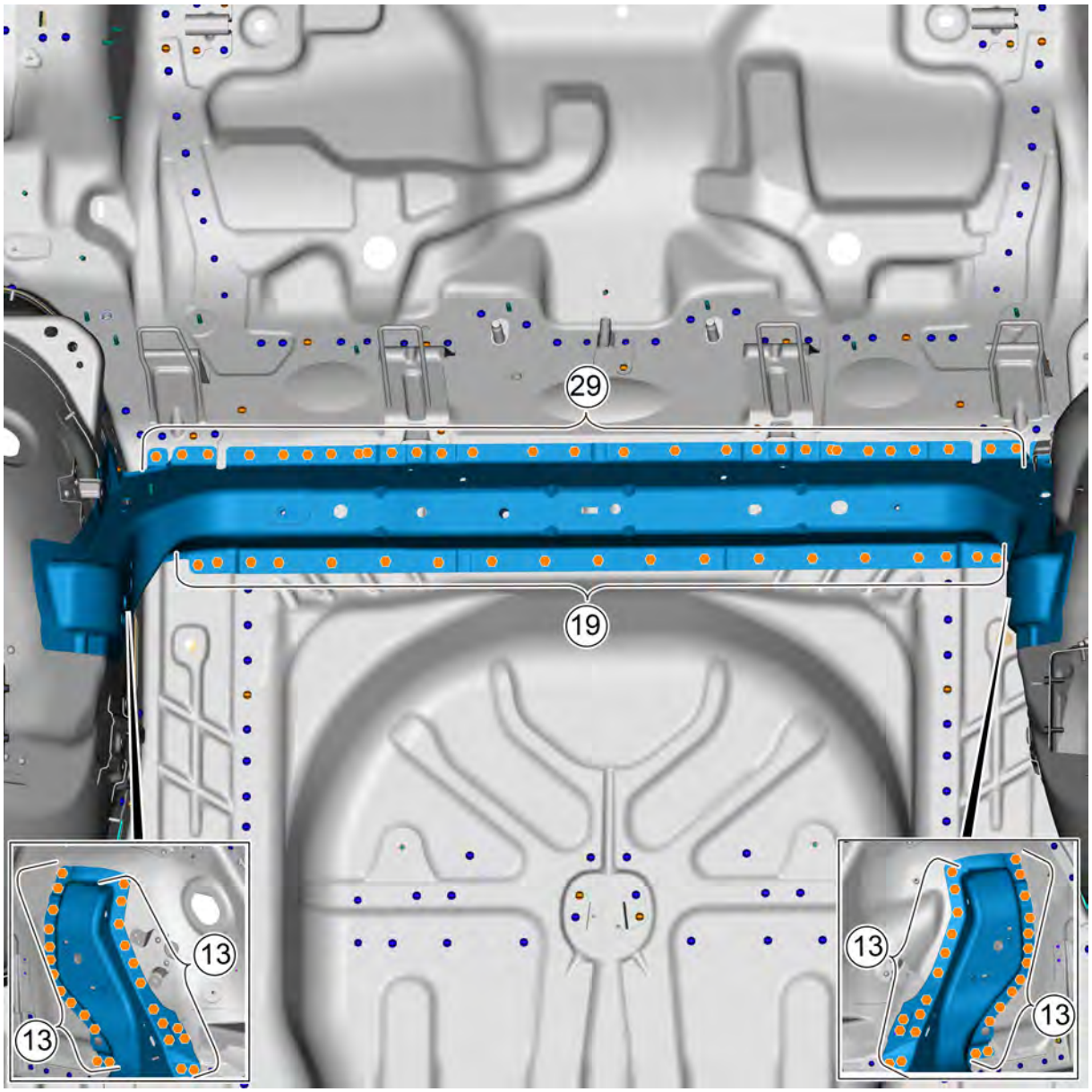
2. After drilling holes at the welding spots shown in the figure below, remove the fixing points between the rear floor upper crossmember assembly and the middle floor and rear floor assembly, as well as the rear wheel cover assembly.



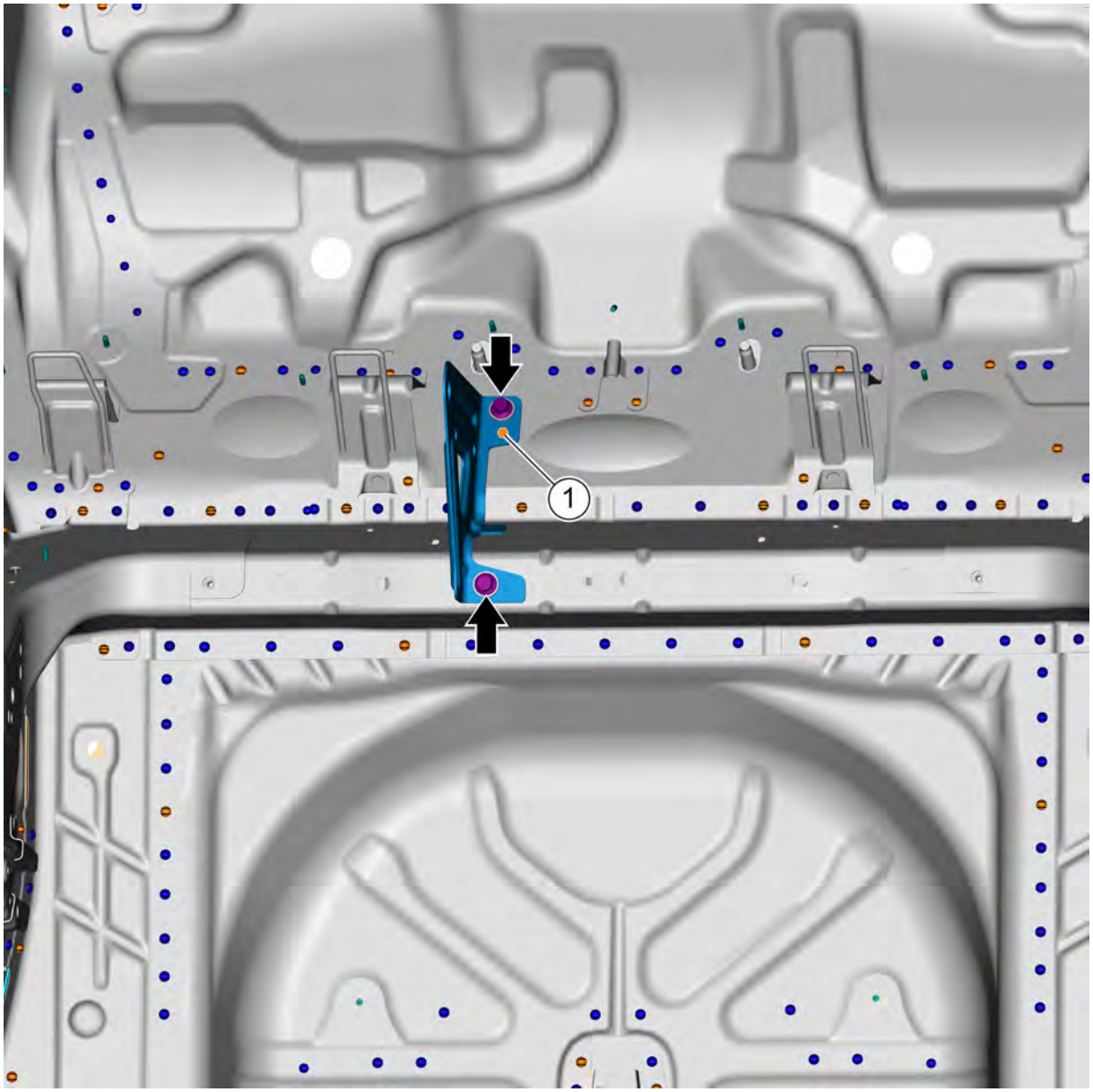
4.2.32 Mounting of upper crossmember assembly rear floor

4.2.32.1 Mounting of upper crossmember assembly rear floor

1. When mounting new parts, measure and adjust the body as needed to meet standard dimensions.
2. After temporarily mounting new parts, make sure that the related parts are properly connected.
3. Mount the fixing points between the rear floor upper crossmember assembly and the middle floor and rear floor assembly, as well as the rear wheel cover assembly.



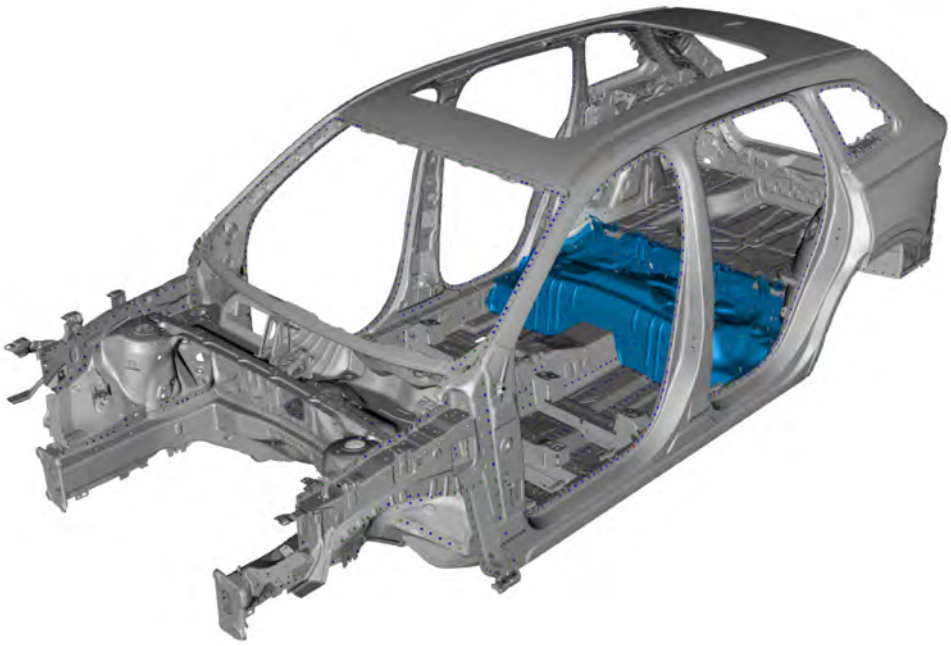
4. Mount the fixing points and fixing bolt arrows of the mounting bracket in the rear seats and the cross beam assembly middle floor and rear floor.



4.2.33 Removal of middle floor

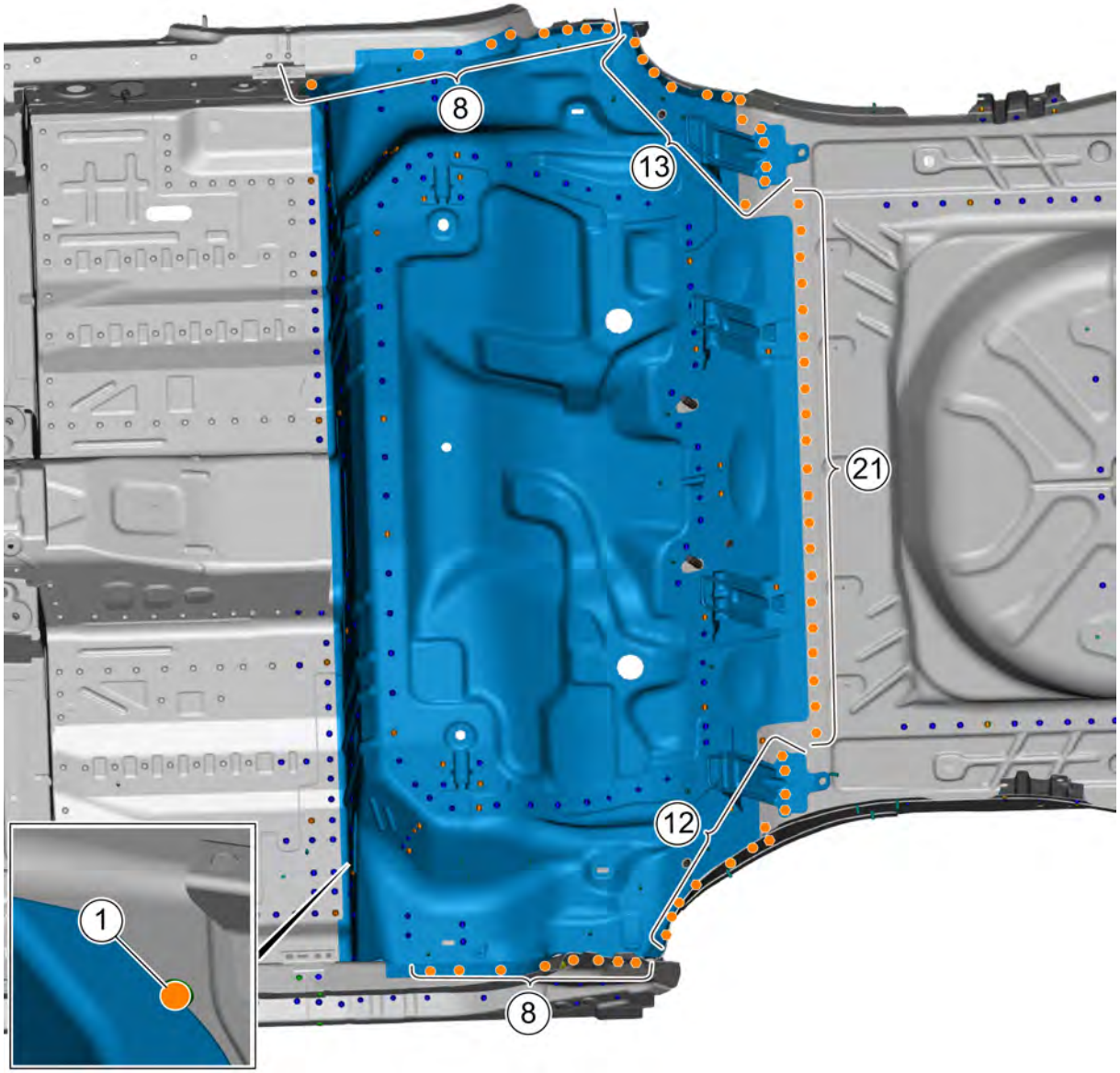
4.2.33.1 Removal of middle floor

Positions of components in the vehicle

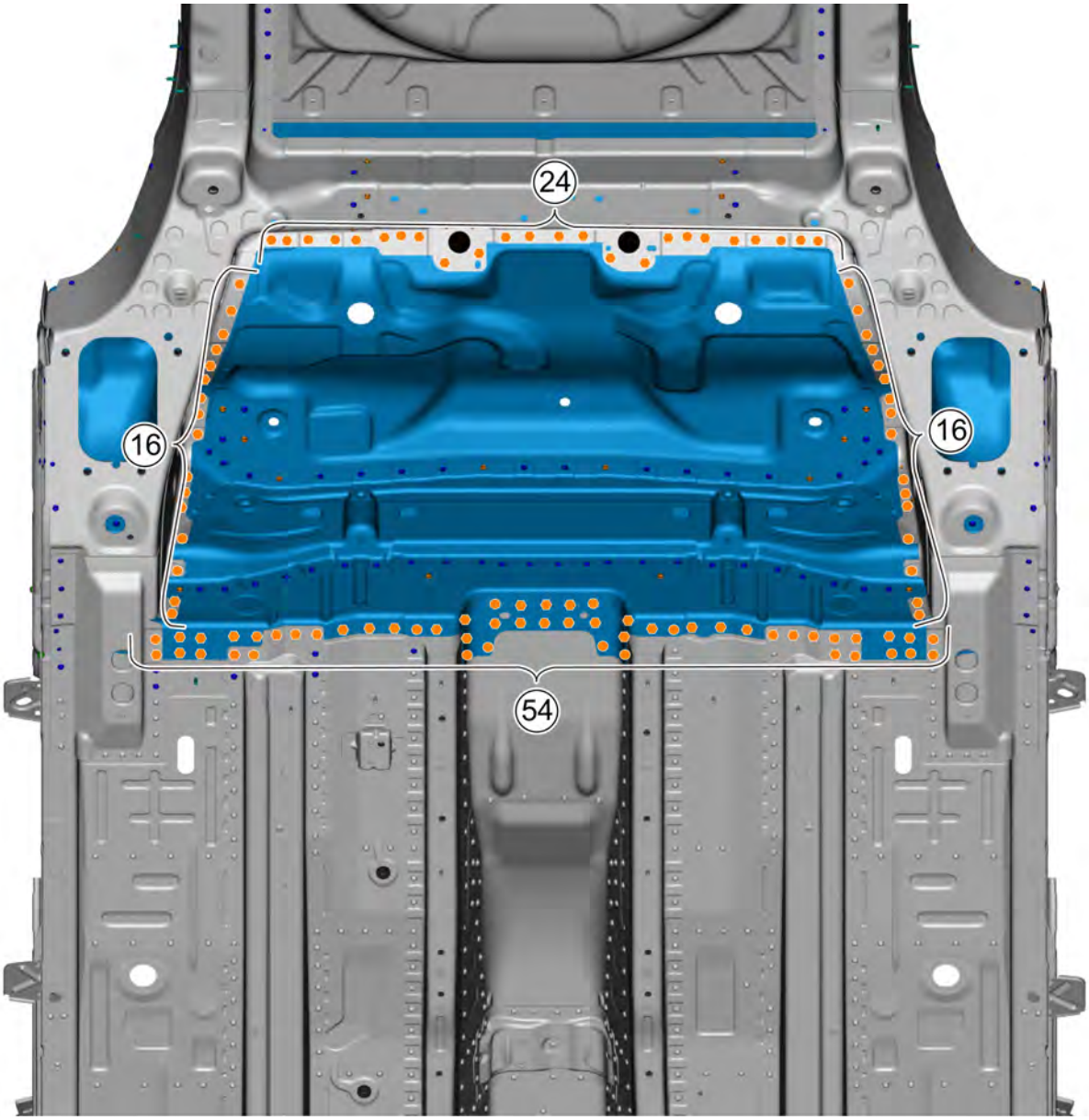


Component Disassembly

1. Remove the upper crossmember assembly rear floor. Refer to Removal of upper crossmember assembly rear floor.
2. After drilling holes at the welding spots shown in the figure below, remove the fixing points between the middle floor and the rear floor assembly, the left and right side member assemblies of the rear floor, and the left and right door sill inner plate assembly.



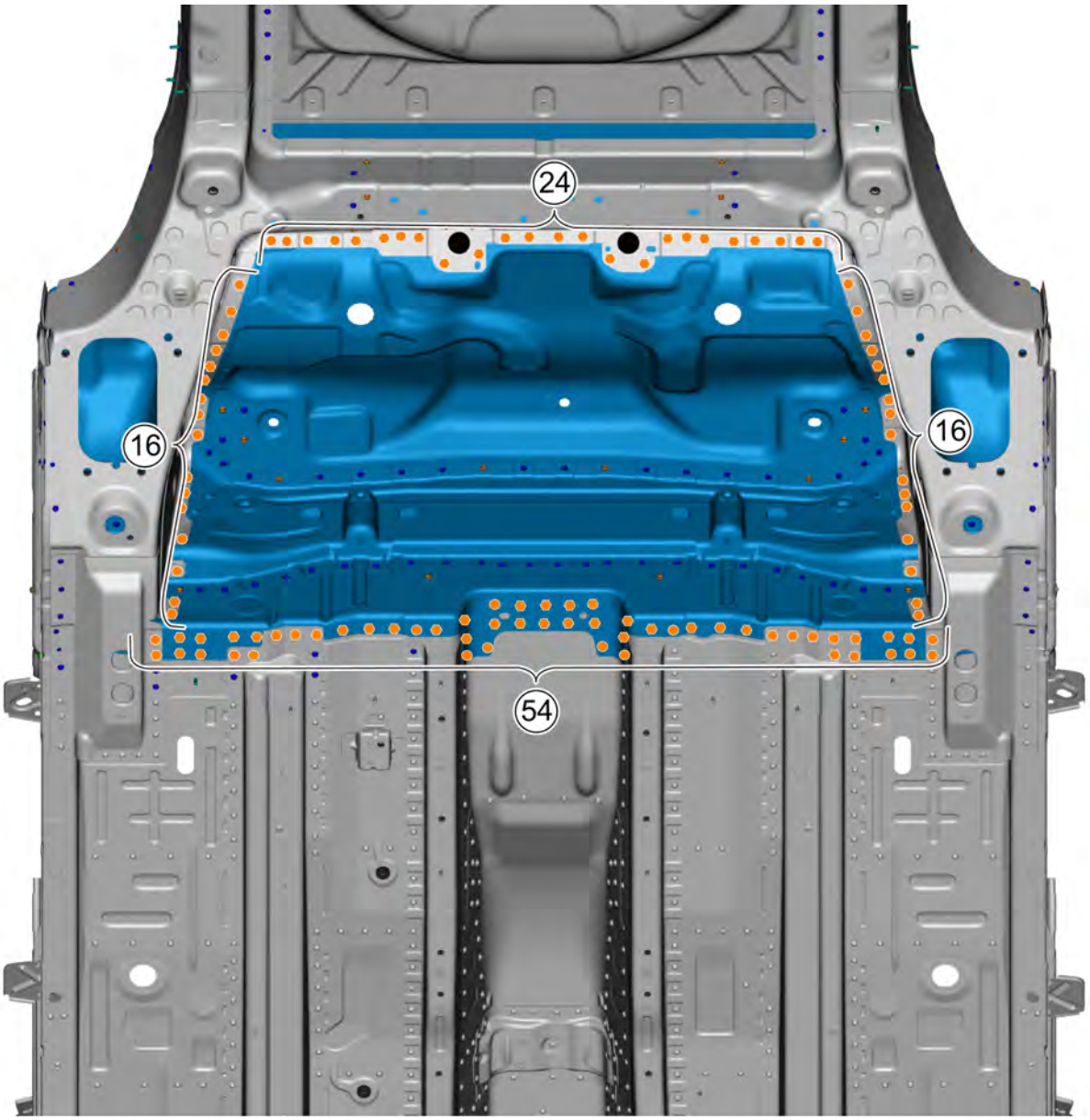
3. After drilling holes at the welding spots shown in the figure below, remove the fixing points between the middle floor and the rear floor assembly, the left and right floor member assemblies, and the front floor assembly.



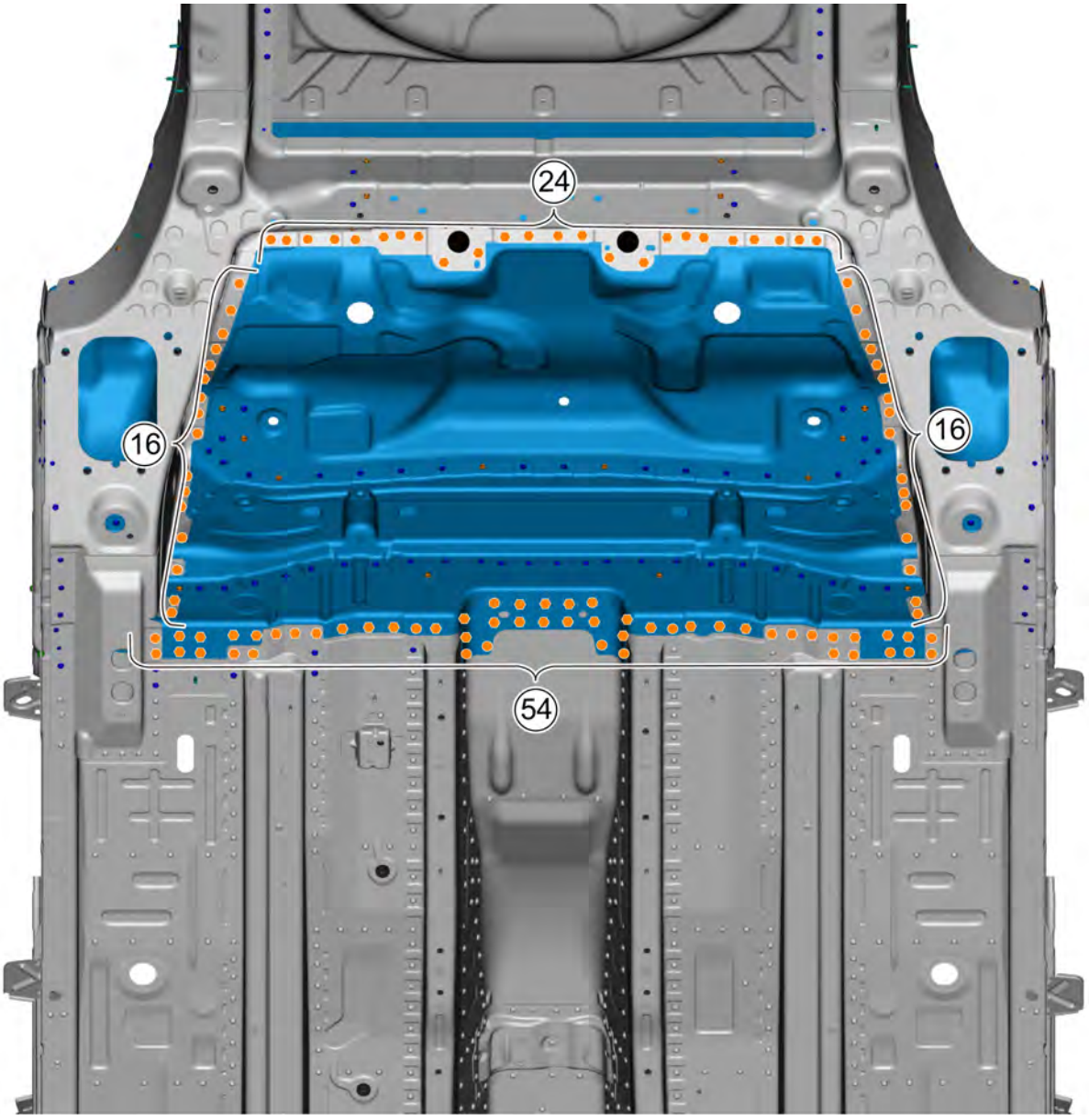
4.2.34 Mounting of middle floor

4.2.34.1 Mounting of middle floor

1. When mounting new parts, measure and adjust the body as needed to meet standard dimensions.
2. After temporarily mounting new parts, make sure that the related parts are properly connected.
3. Mount the fixing points between the middle floor and the rear floor assembly, the rear floor left and right side member assemblies, and the front floor assembly.



4. Mount the fixing points between the middle floor and the rear floor assembly, the rear floor left and right side member assemblies, and the left and right door sill inner plate assemblies.

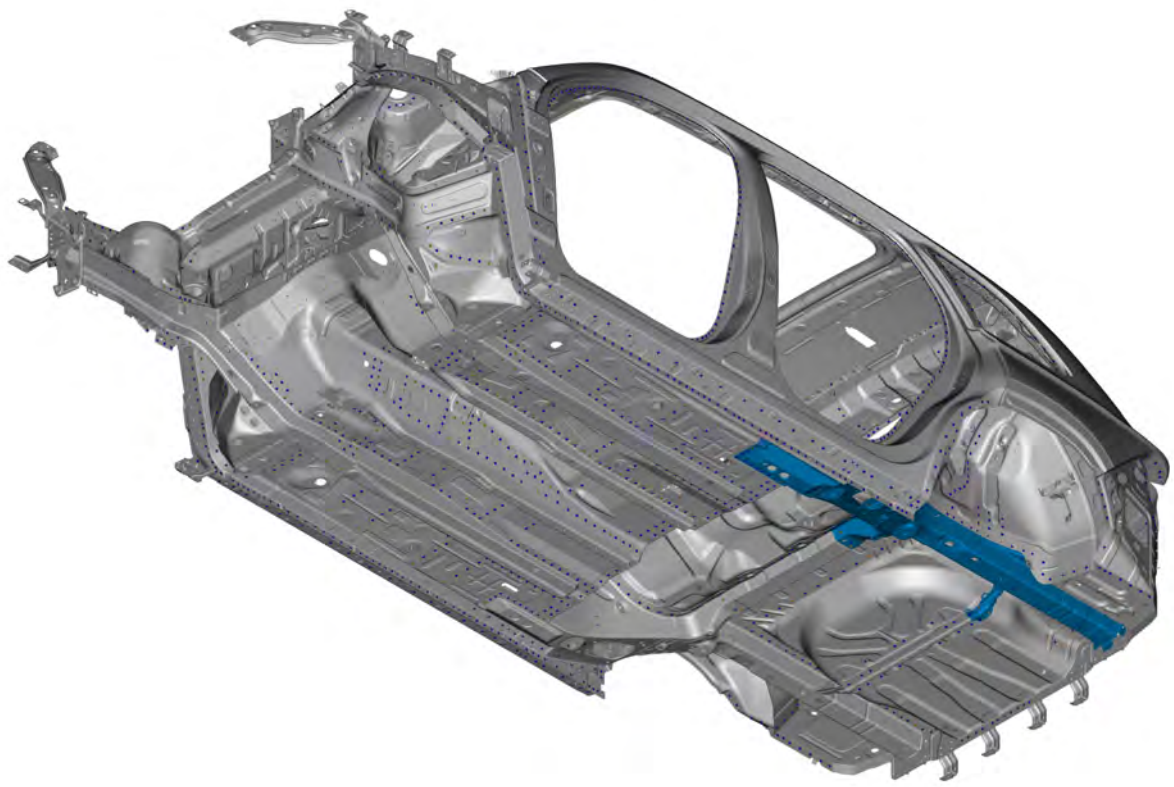


5. Mount the rear floor upper beam assembly.

4.2.35 Removal of left side member assembly of rear floor

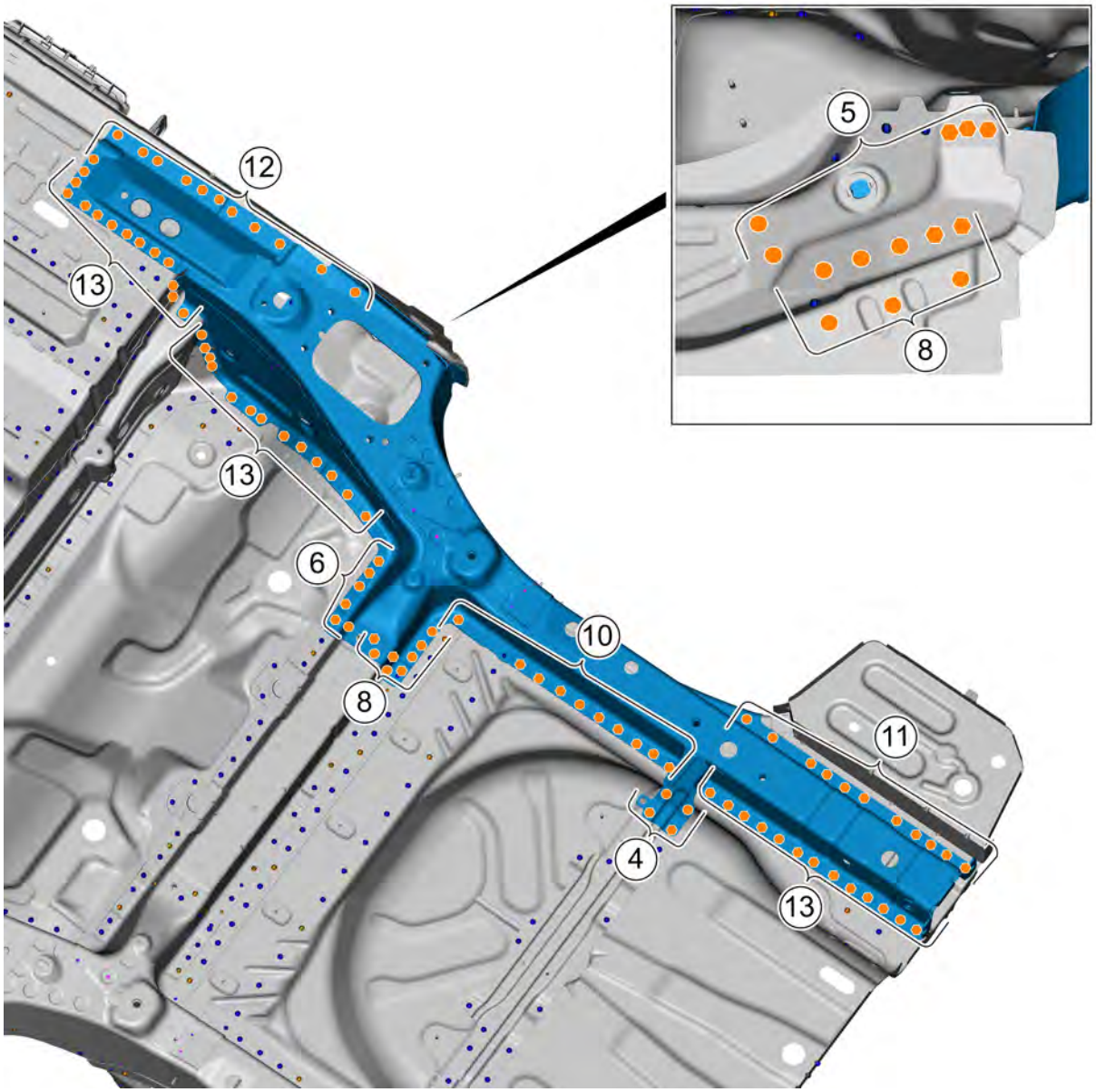
4.2.35.1 Removal of left side member assembly of rear floor

Positions of components in the vehicle



Component Disassembly

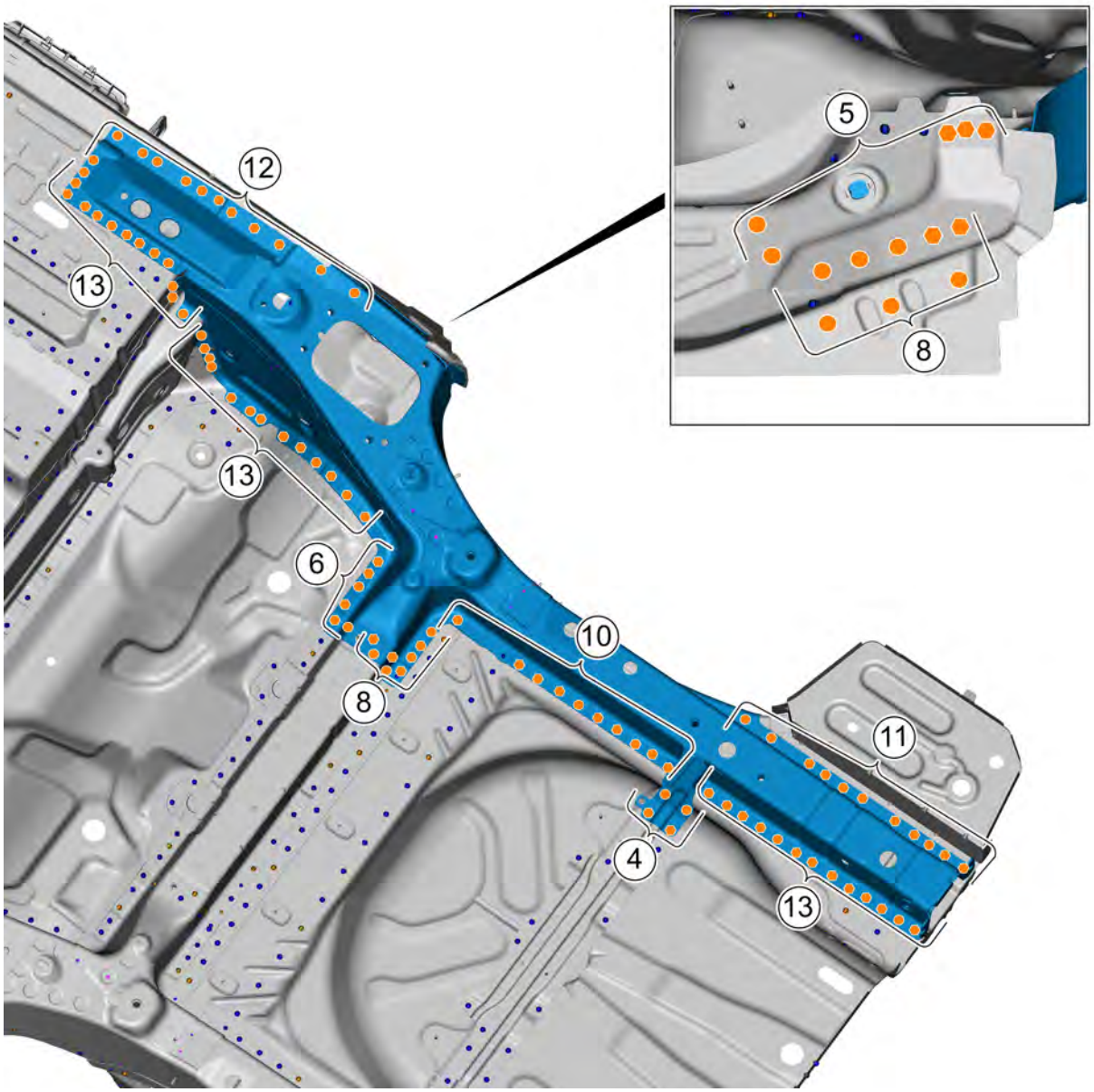
1. After drilling holes at the welding spots shown in the figure below, remove the fixing points between the rear floor left side member assembly and the left door sill inner plate assembly, the front floor assembly and the rear floor assembly.



4.2.36 Mounting of left side member assembly of rear floor

4.2.36.1 Mounting of left side member assembly of rear floor

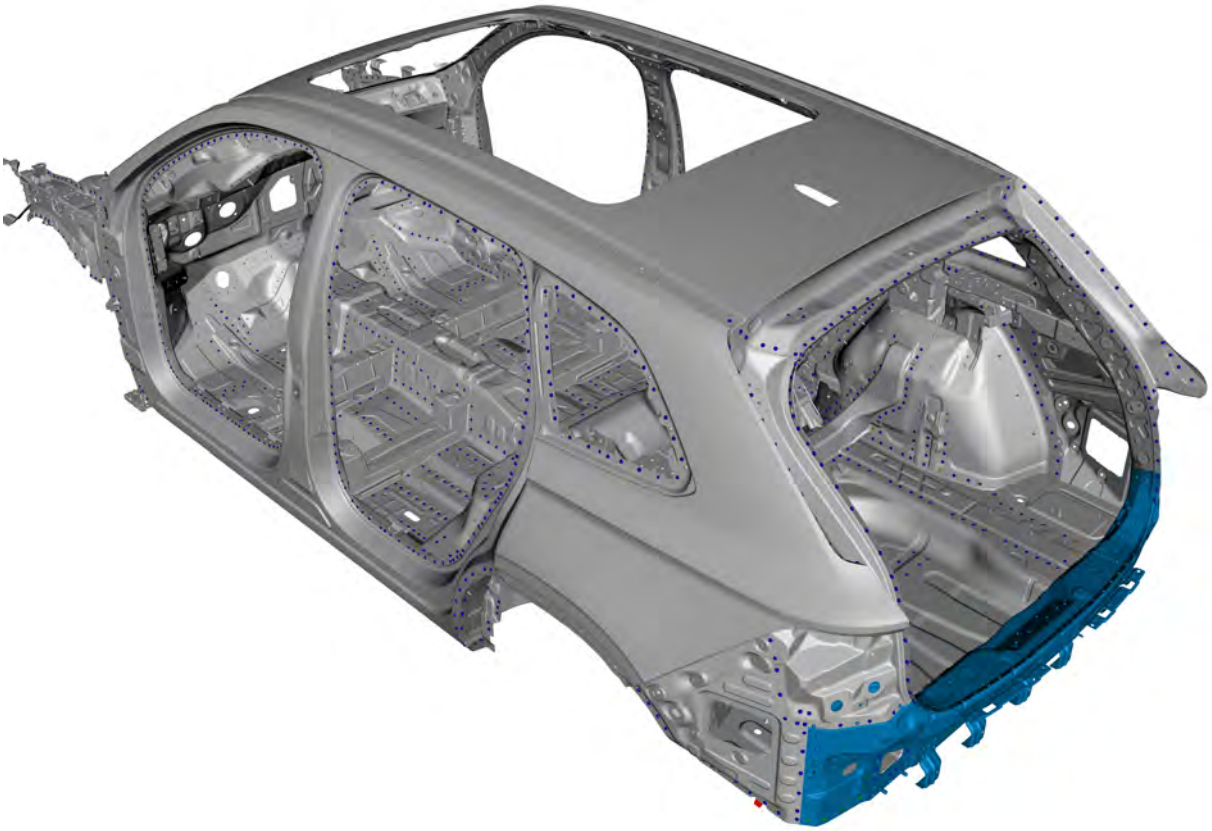
1. When mounting new parts, measure and adjust the body as needed to meet standard dimensions.
2. After temporarily mounting new parts, make sure that the related parts are properly connected.
3. Mount the fixing points between the rear floor left side member assembly and the left door sill inner plate assembly, the front floor assembly and the rear floor assembly.



4.2.37 Removal of rear wall panel assembly

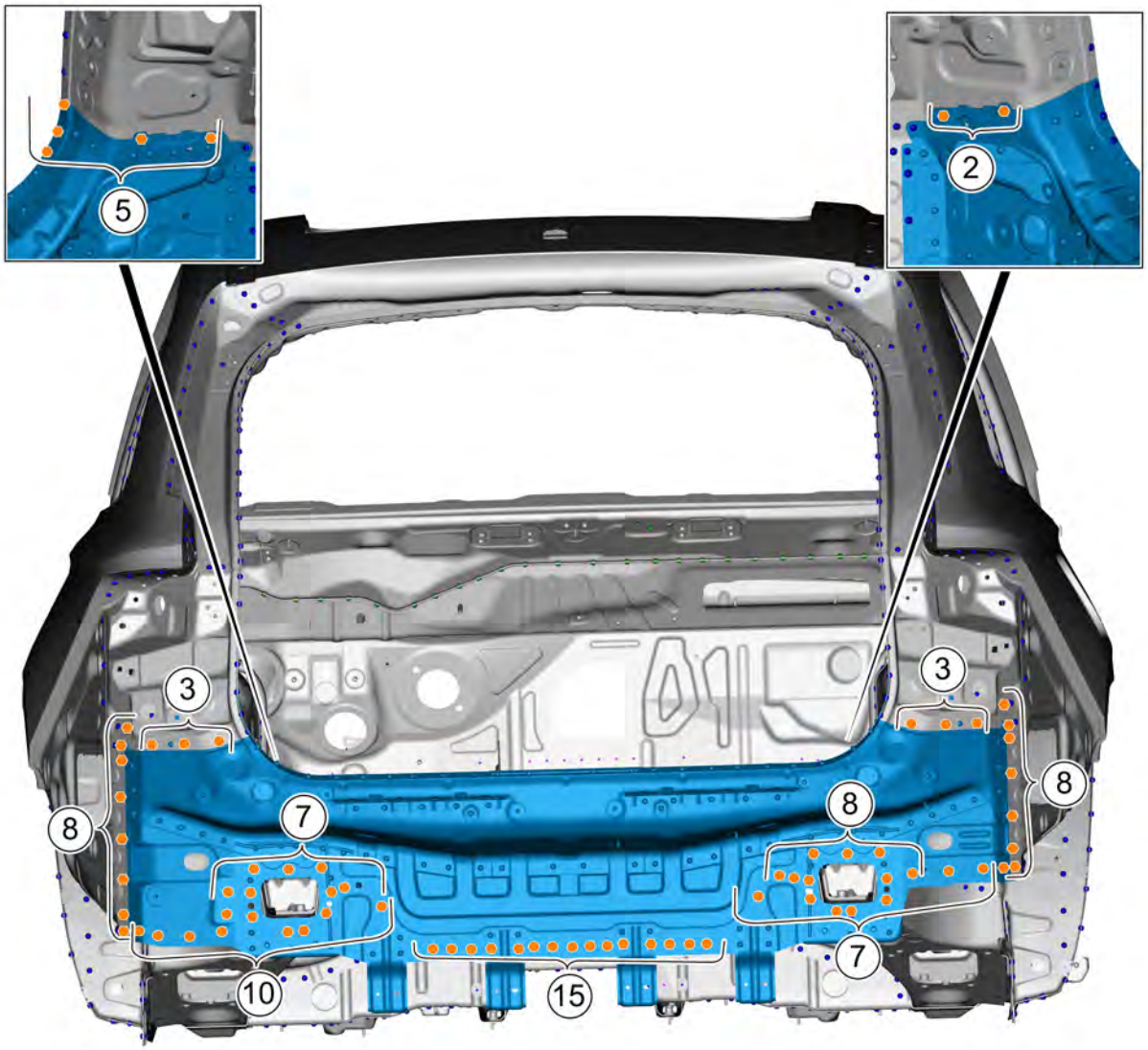
4.2.37.1 Removal of rear wall panel assembly

Positions of components in the vehicle



Component Disassembly

1. After drilling holes at the welding spots shown in the figure below, remove the fixing points between the rear wall panel assembly and the left side wall assembly & the rear floor assembly.



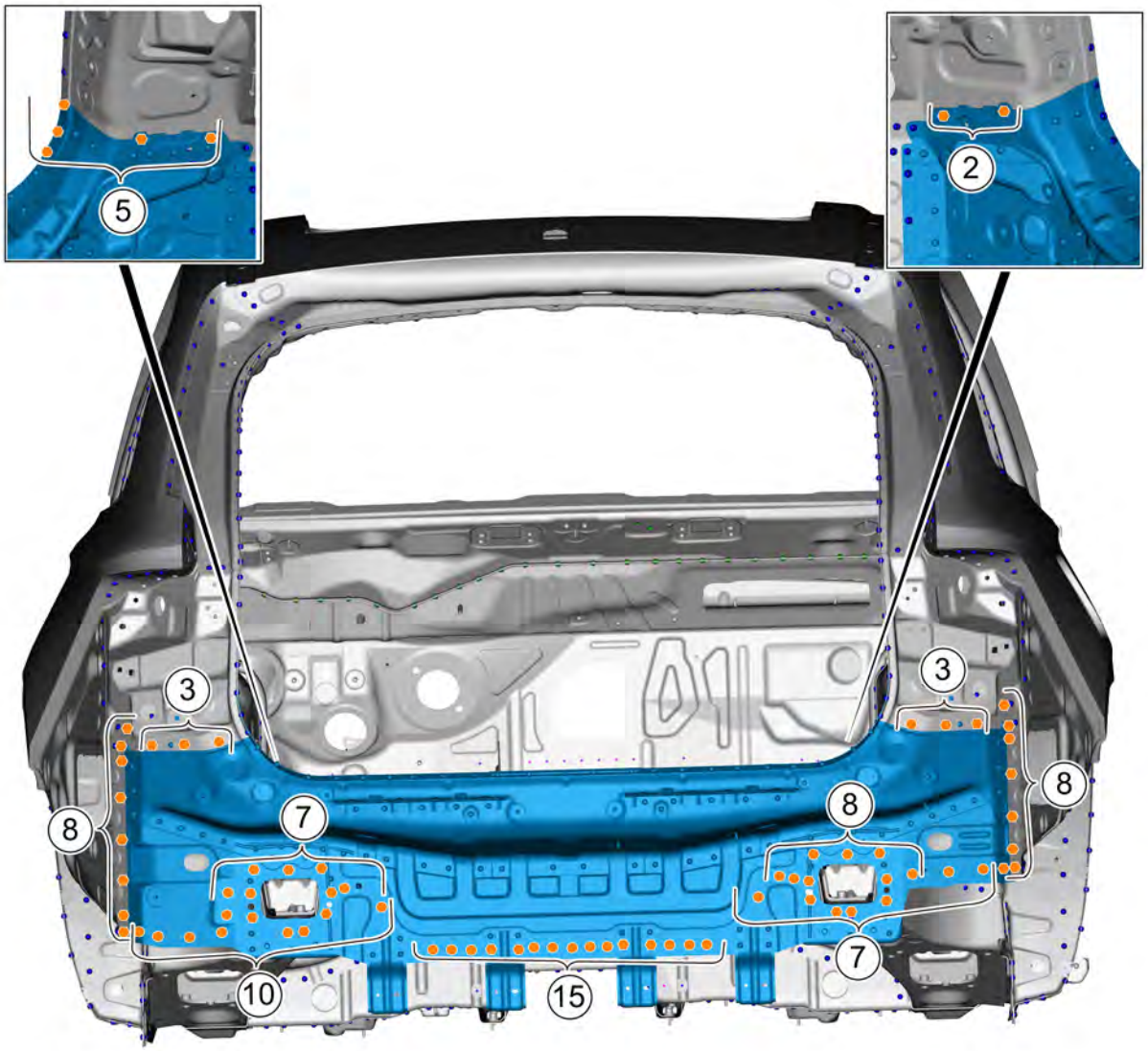
4.2.38 Mounting of rear wall panel assembly

4.2.38.1 Mounting of rear wall panel assembly

1. When mounting new parts, measure and adjust the body as needed to meet standard dimensions.

2. After temporarily mounting new parts, make sure that the related parts are properly connected.

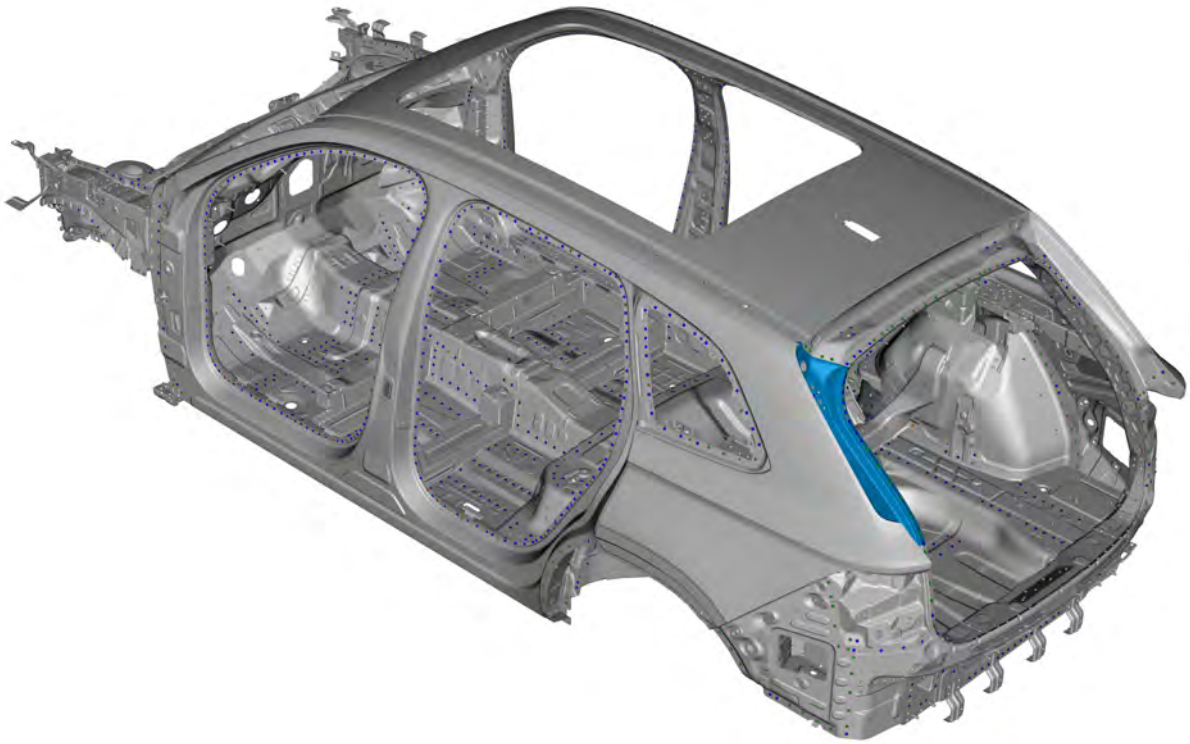
3. Mount the fixing points between the rear wall panel assembly and the left side wall assembly & the rear floor assembly.



4.2.39 Removal of the rear water slot assembly of the left side wall

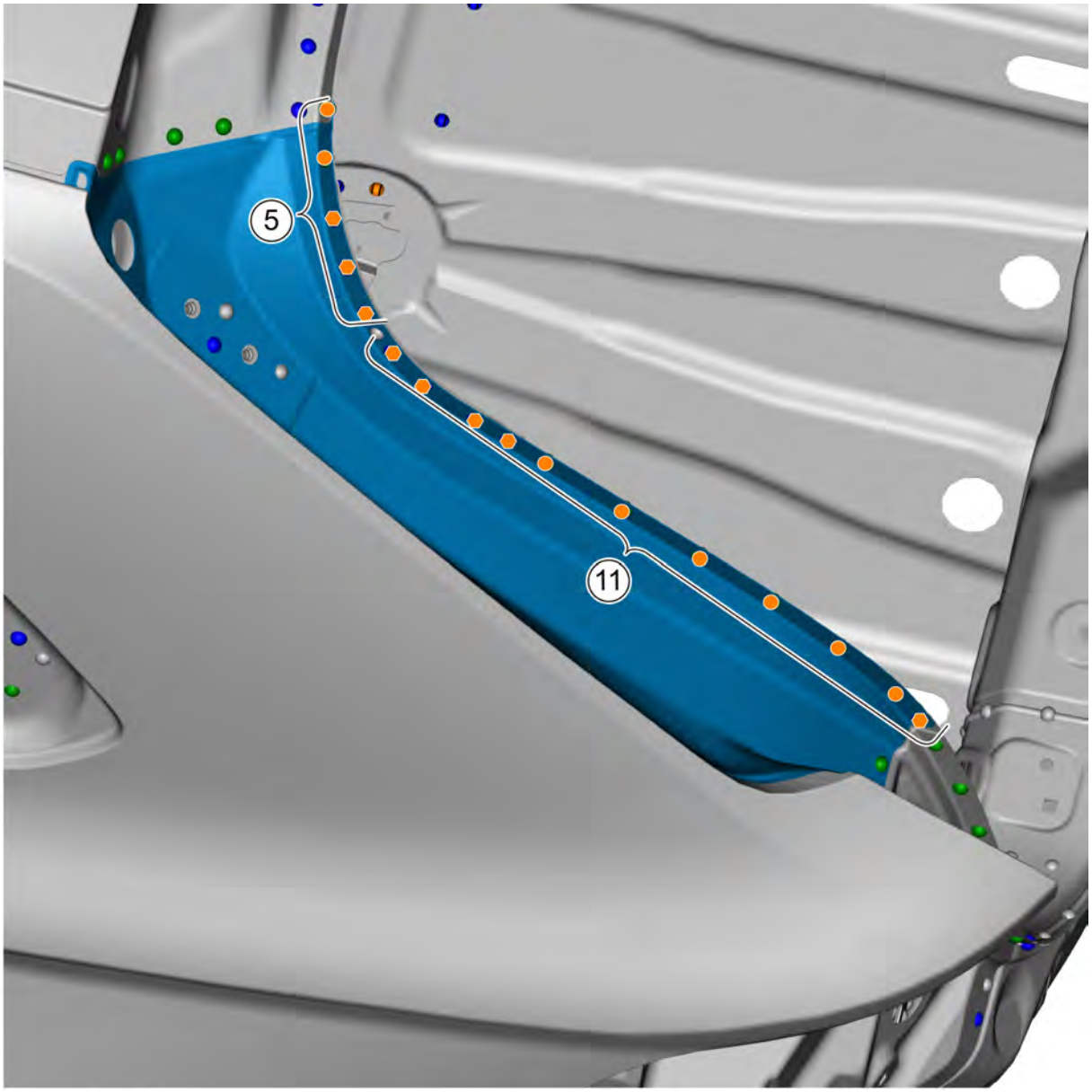
4.2.39.1 Removal of the rear water slot assembly of the left side wall

Positions of components in the vehicle

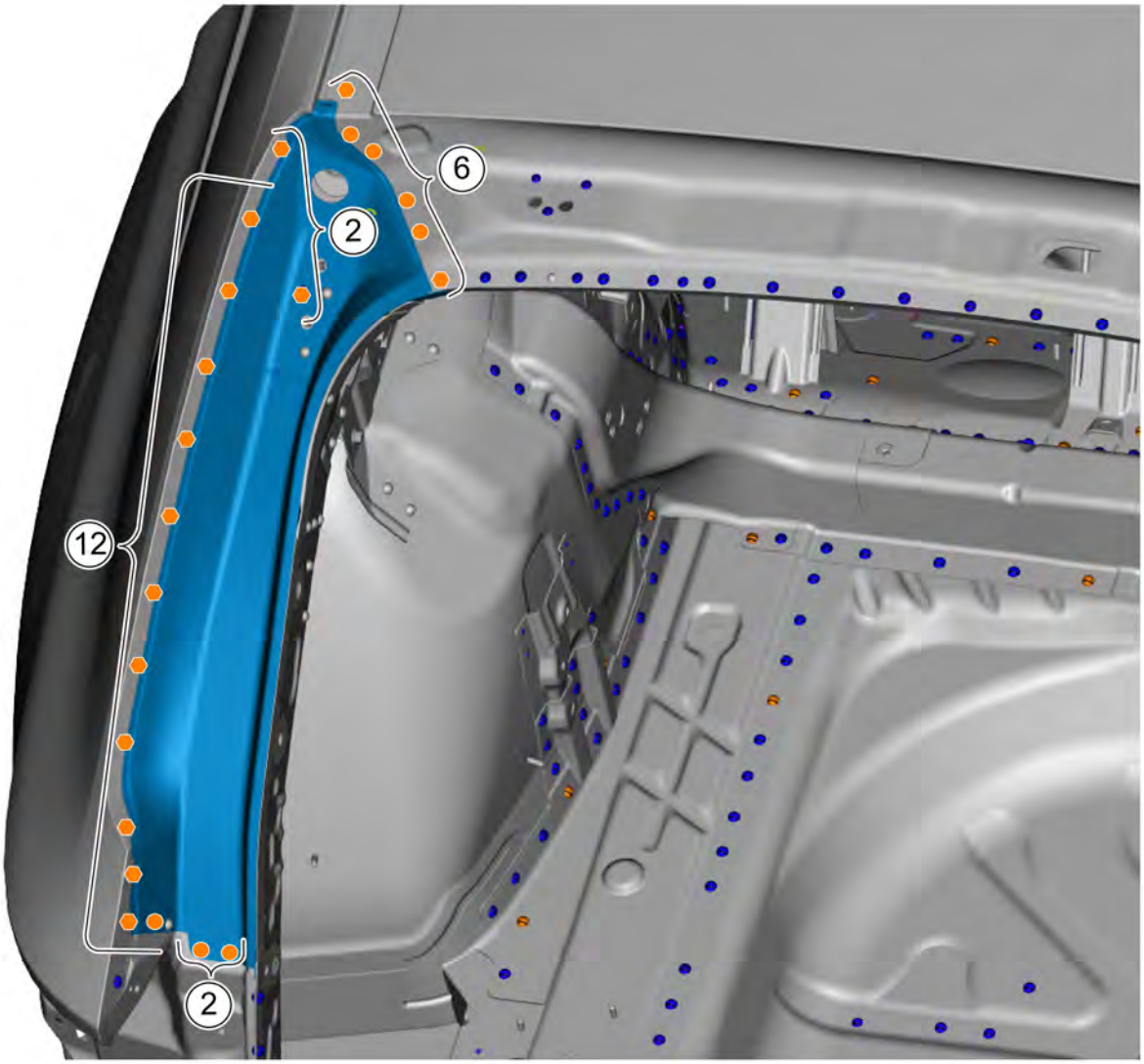


Component Disassembly

1. After drilling holes at the welding spots shown in the figure below, remove the fixing points between the rear water slot assembly of left side wall and the rear left pillar assembly.



2. After drilling holes at the welding spots shown in the figure below, remove the fixing points between the rear water slot assembly side wall LH and the left side wall outer panel.



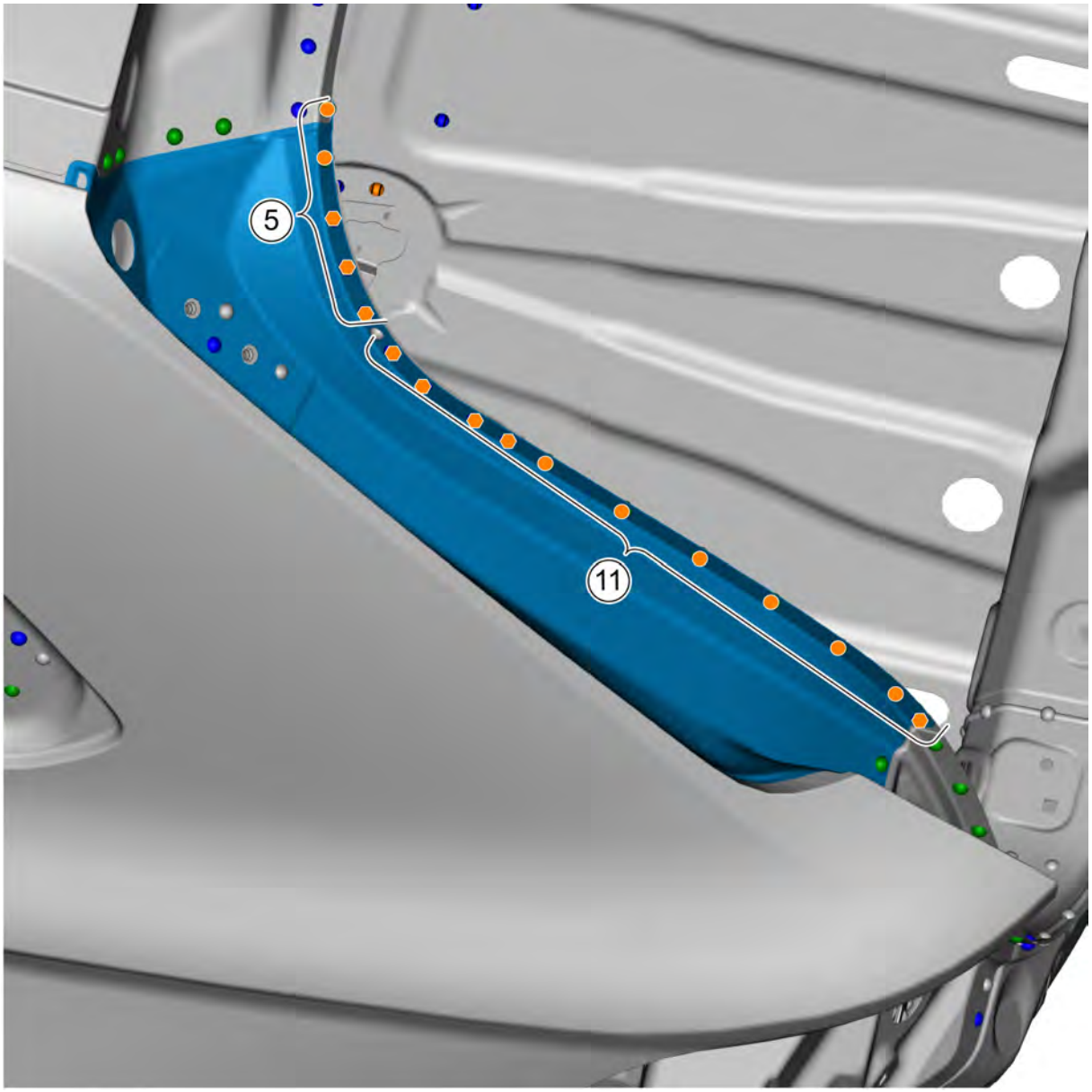
4.2.40 Mounting of rear water slot assembly of left side wall

4.2.40.1 Mounting of rear water slot assembly of left side wall

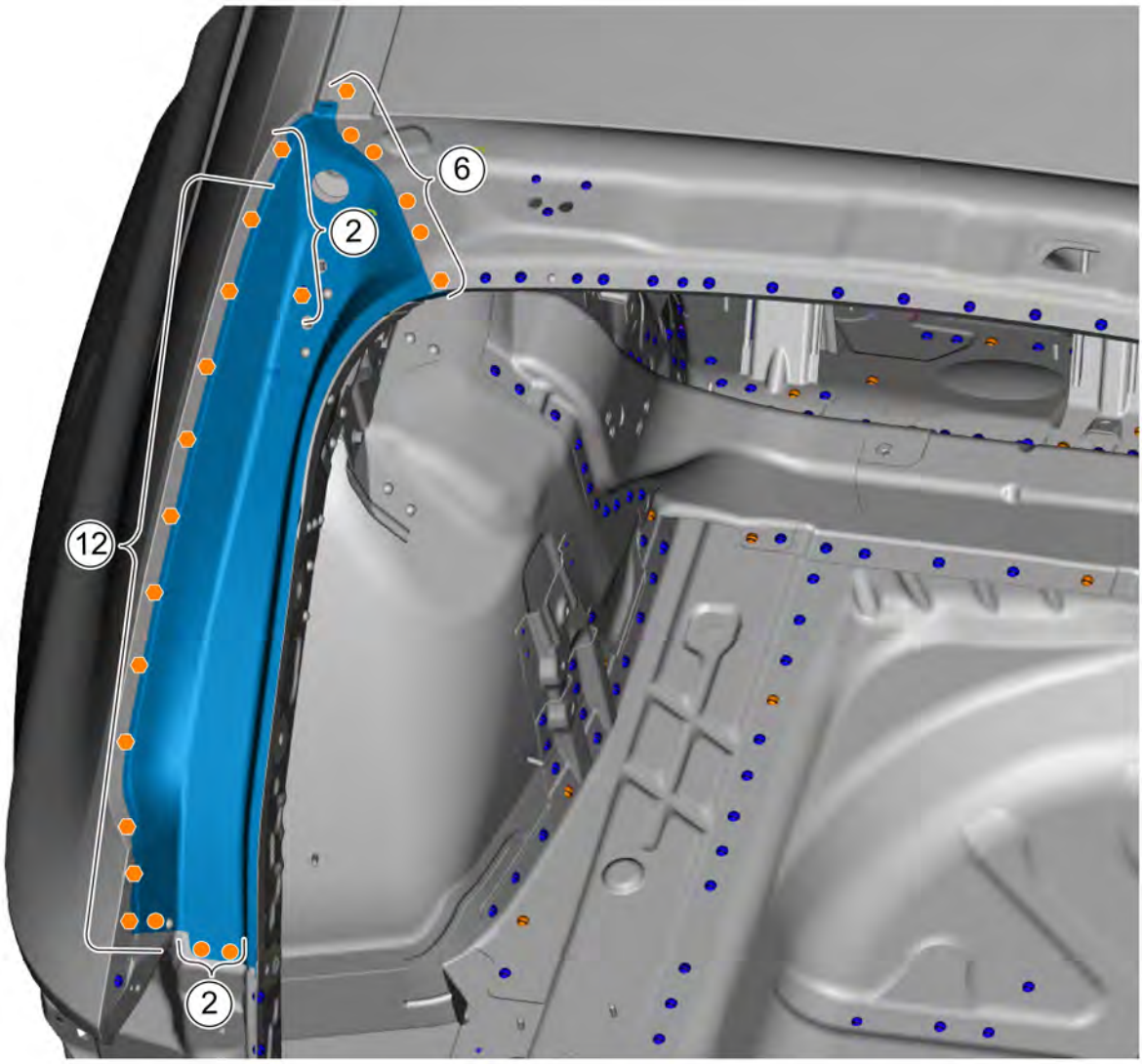
1. When mounting new parts, measure and adjust the body as needed to meet standard dimensions.

2. After temporarily mounting new parts, make sure that the related parts are properly connected.

3. Mount the fixing points between the assembly-side wall rear water slot LH and the left side wall outer panel.



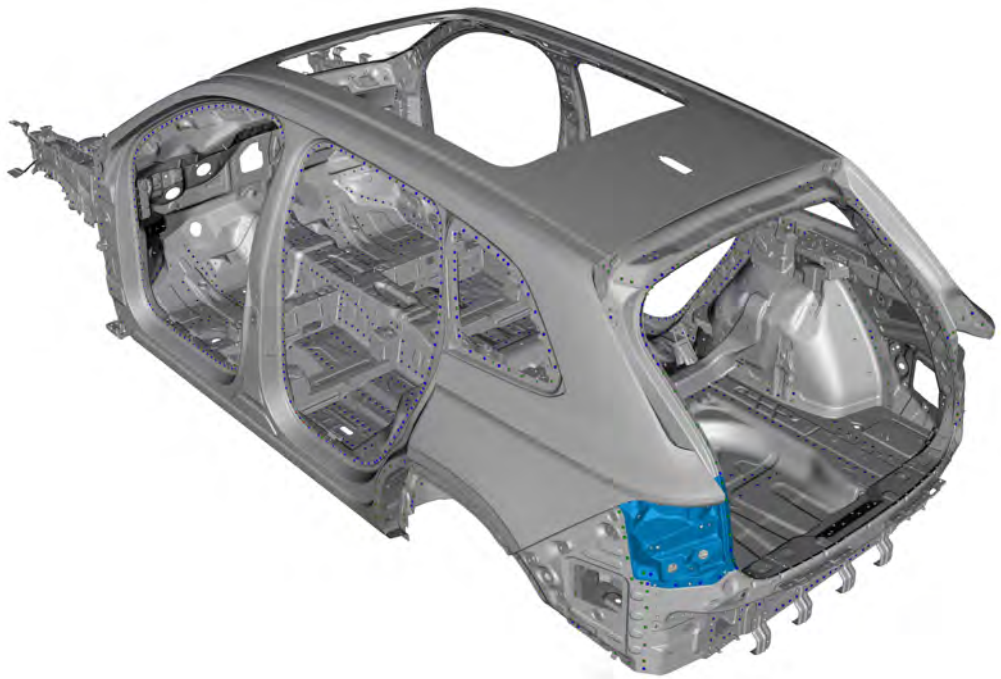
4. Mount the fixing points between the rear water slot assembly side wall LH and the rear left pillar assembly.



4.2.41 Removal of the mounting plate assembly of the left taillight

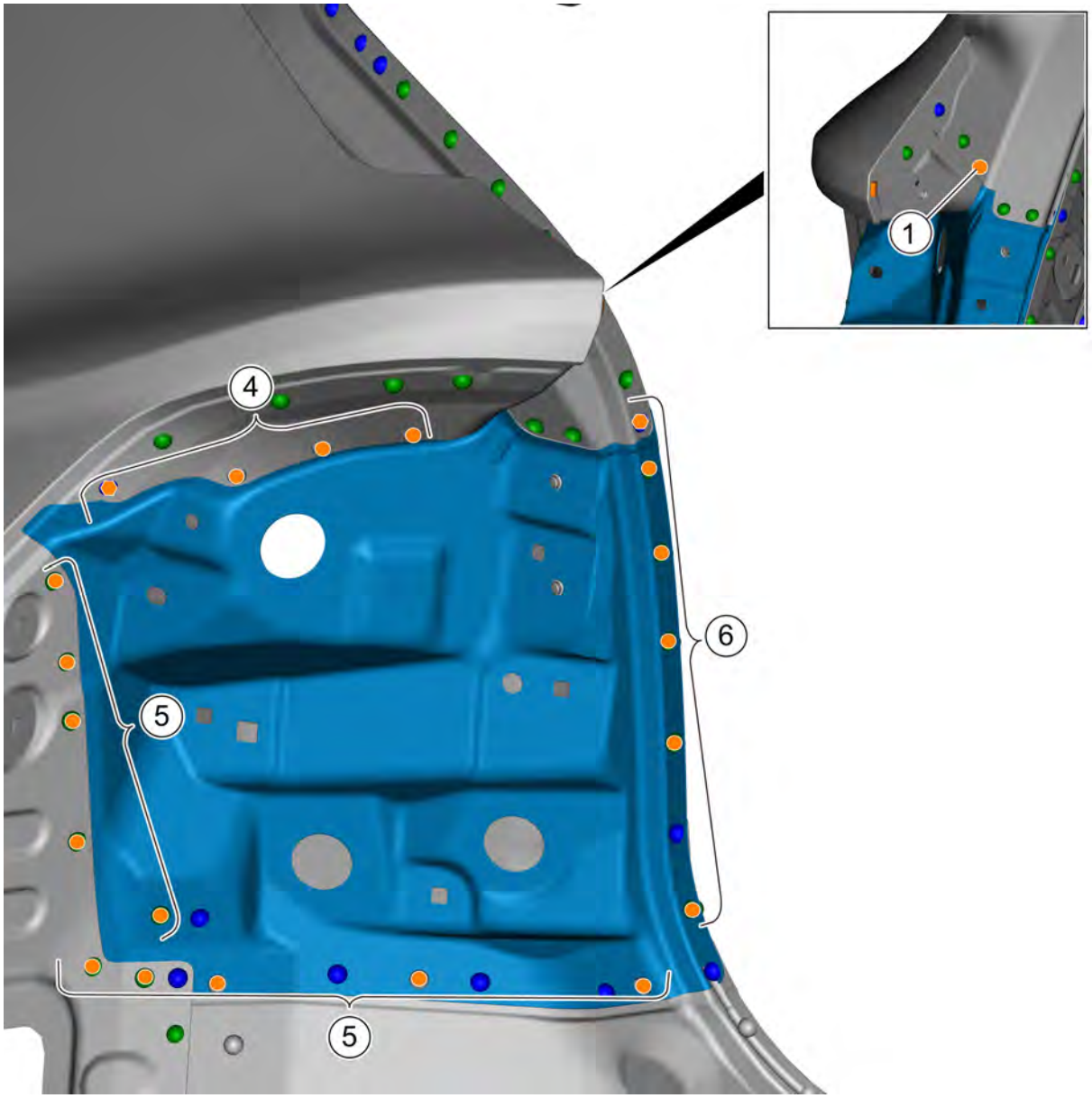
4.2.41.1 Removal of the mounting plate assembly of the left taillight

Positions of components in the vehicle



Component Disassembly

1. After drilling holes at the welding spots shown in the figure below, remove the fixing points between the rear water slot assembly of left side wall and the rear left pillar assembly.



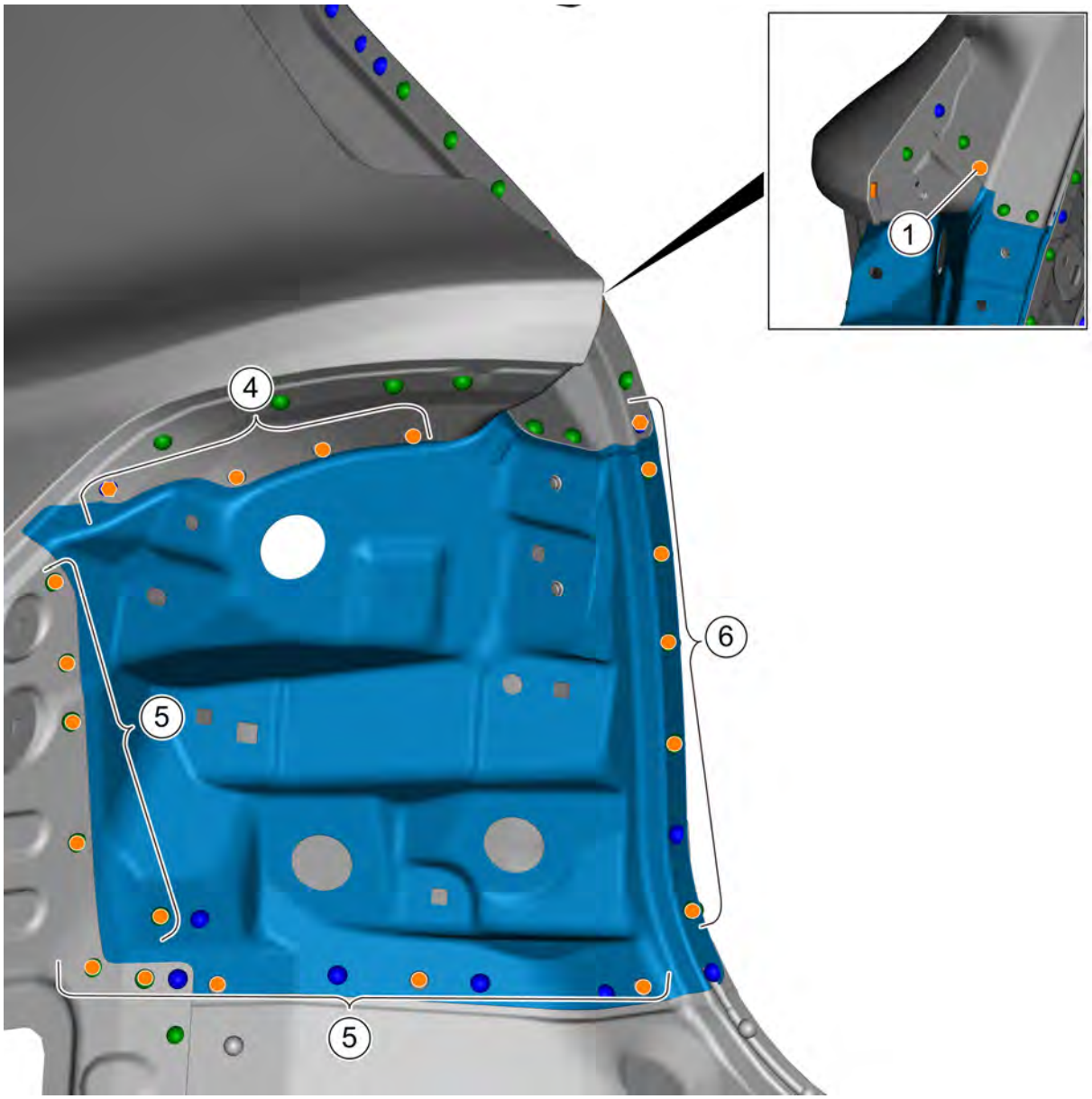
4.2.42 Mounting of left taillight mounting plate assembly

4.2.42.1 Mounting of left taillight mounting plate assembly

1. When mounting new parts, measure and adjust the body as needed to meet standard dimensions.

2. After temporarily mounting new parts, make sure that the related parts are properly connected.

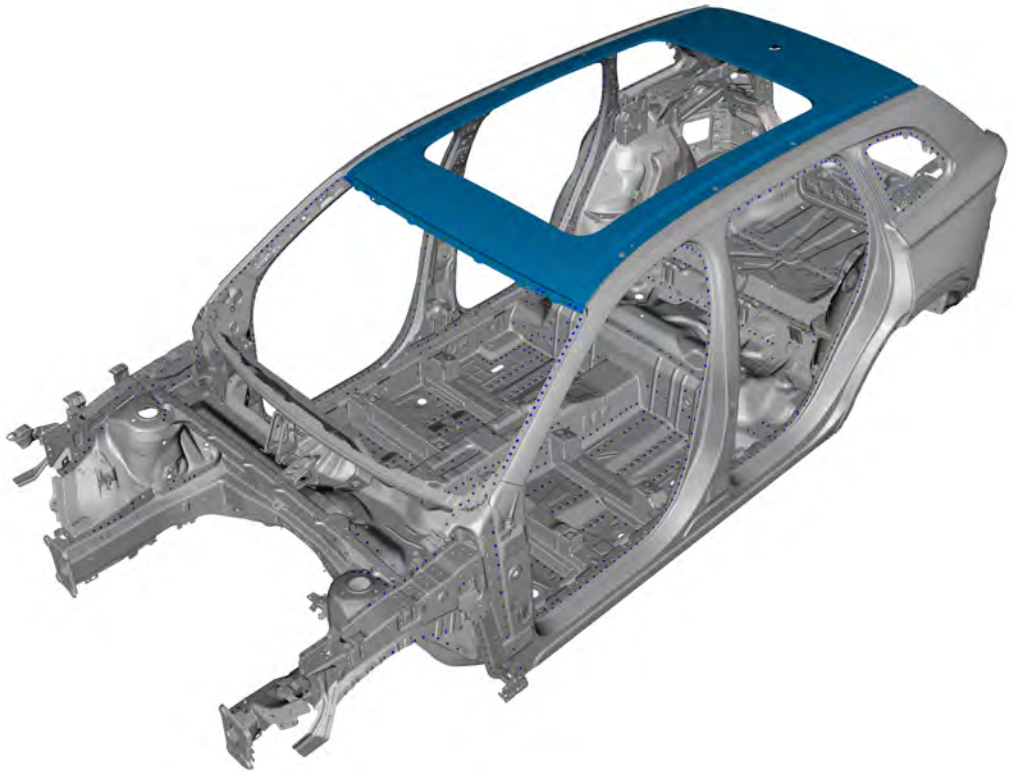
3. Mount the fixing points between the assembly-side wall rear water slot LH and the left side wall outer panel.



4.2.43 Removal of panel roof assembly (with sunroof)

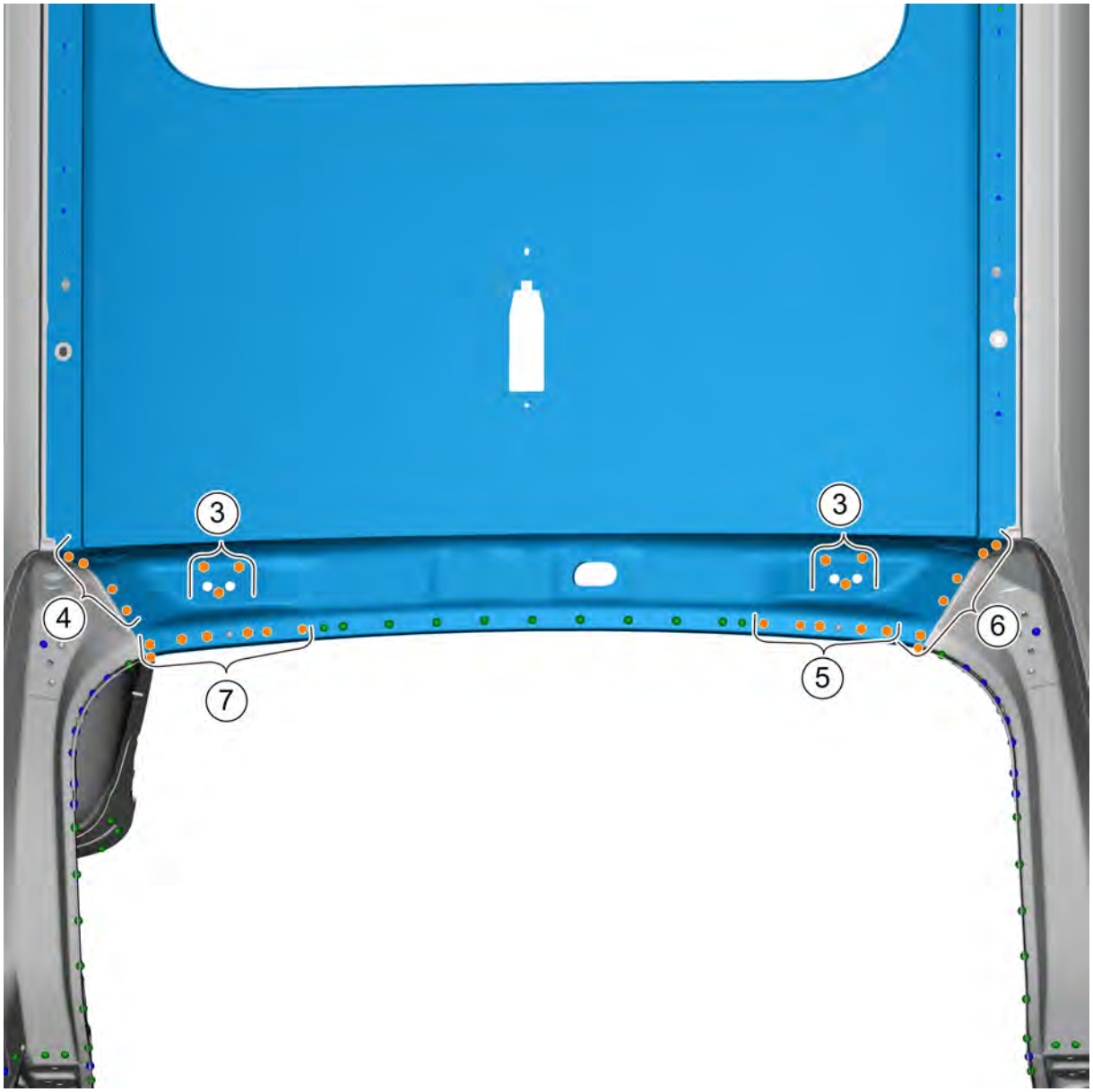
4.2.43.1 Removal of panel roof assembly (with sunroof)

Positions of components in the vehicle

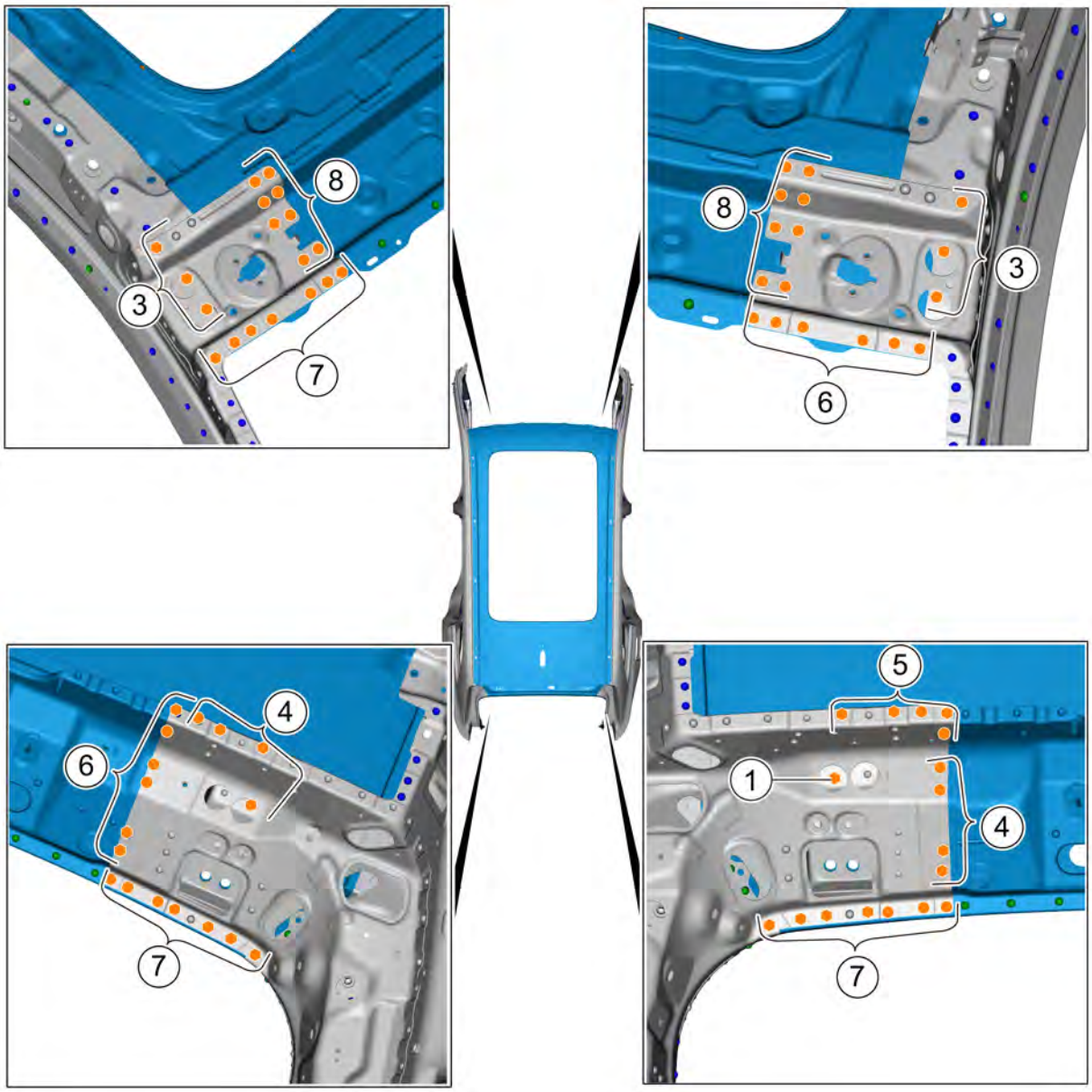


Component Disassembly

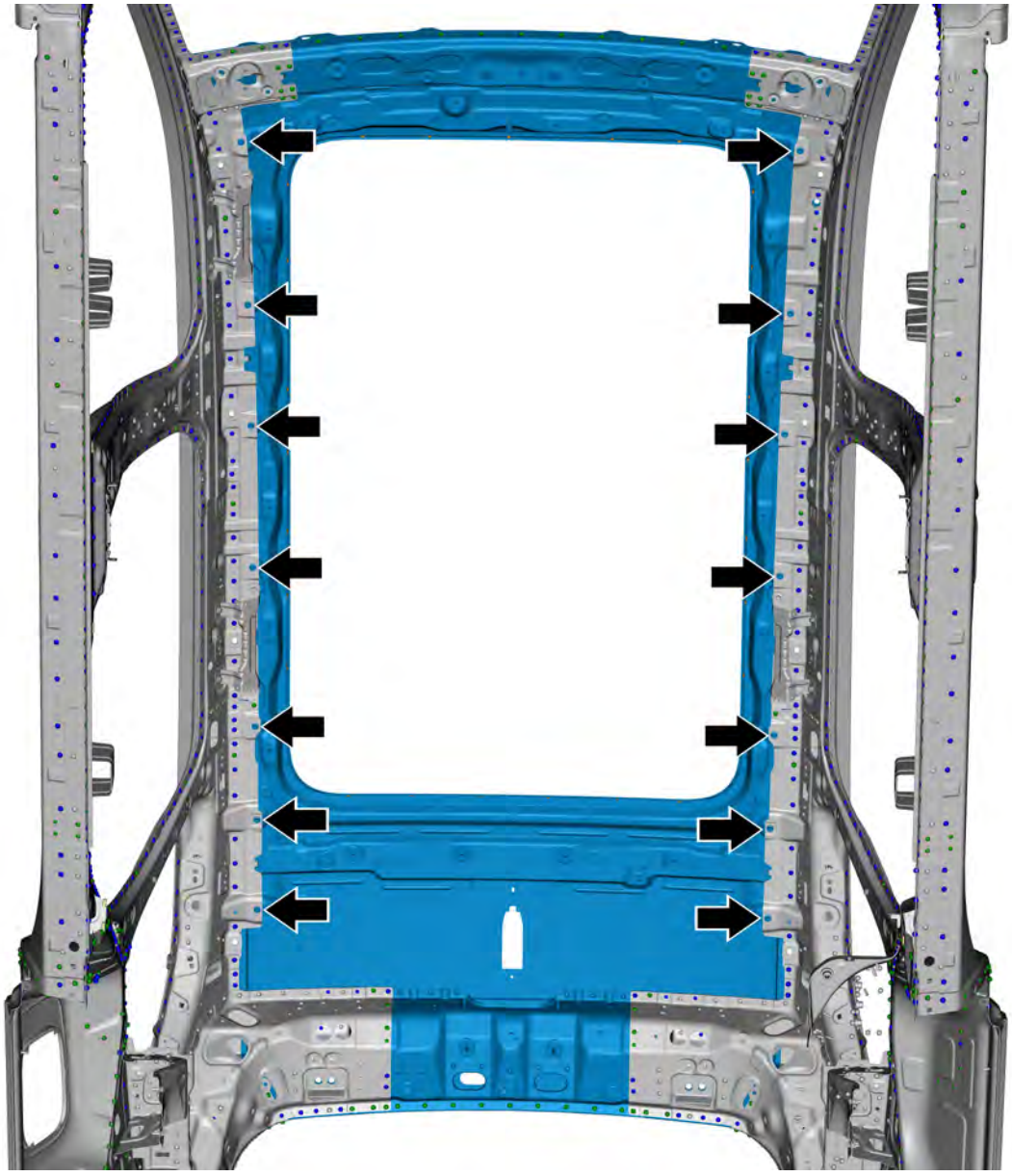
1. After drilling holes at the welding spots shown in the figure below, remove the fixing points between the panel roof assembly and the left & right side wall assemblies.



2. After drilling holes at the welding spots shown in the figure below, remove the fixing points between the panel roof assembly and the left & right side wall assemblies.



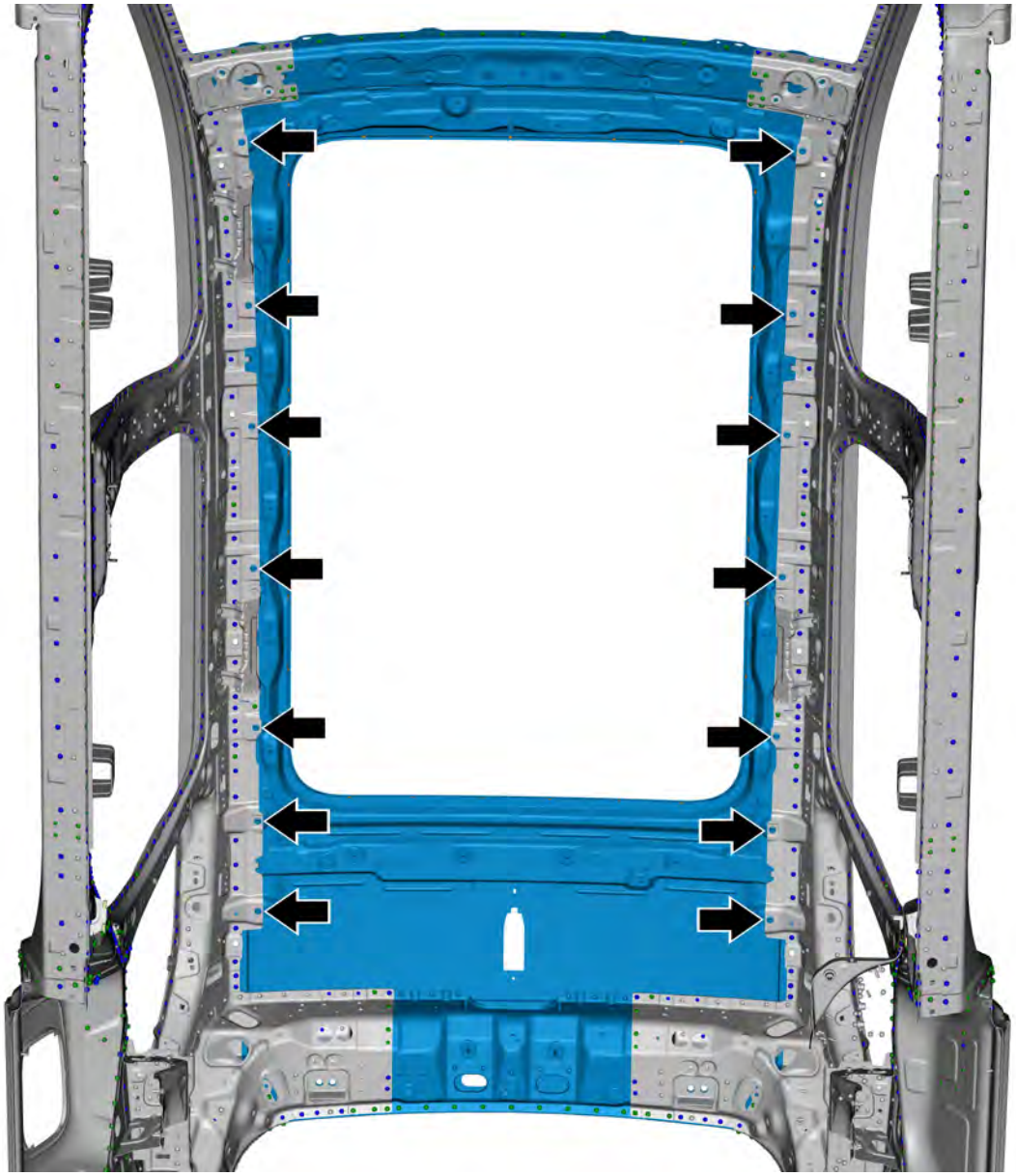
3. After drilling holes at the welding spots shown in the figure below, remove the fixing bolt arrows connecting the panel roof assembly (panoramic sunroof) and the left and right side wall assemblies.



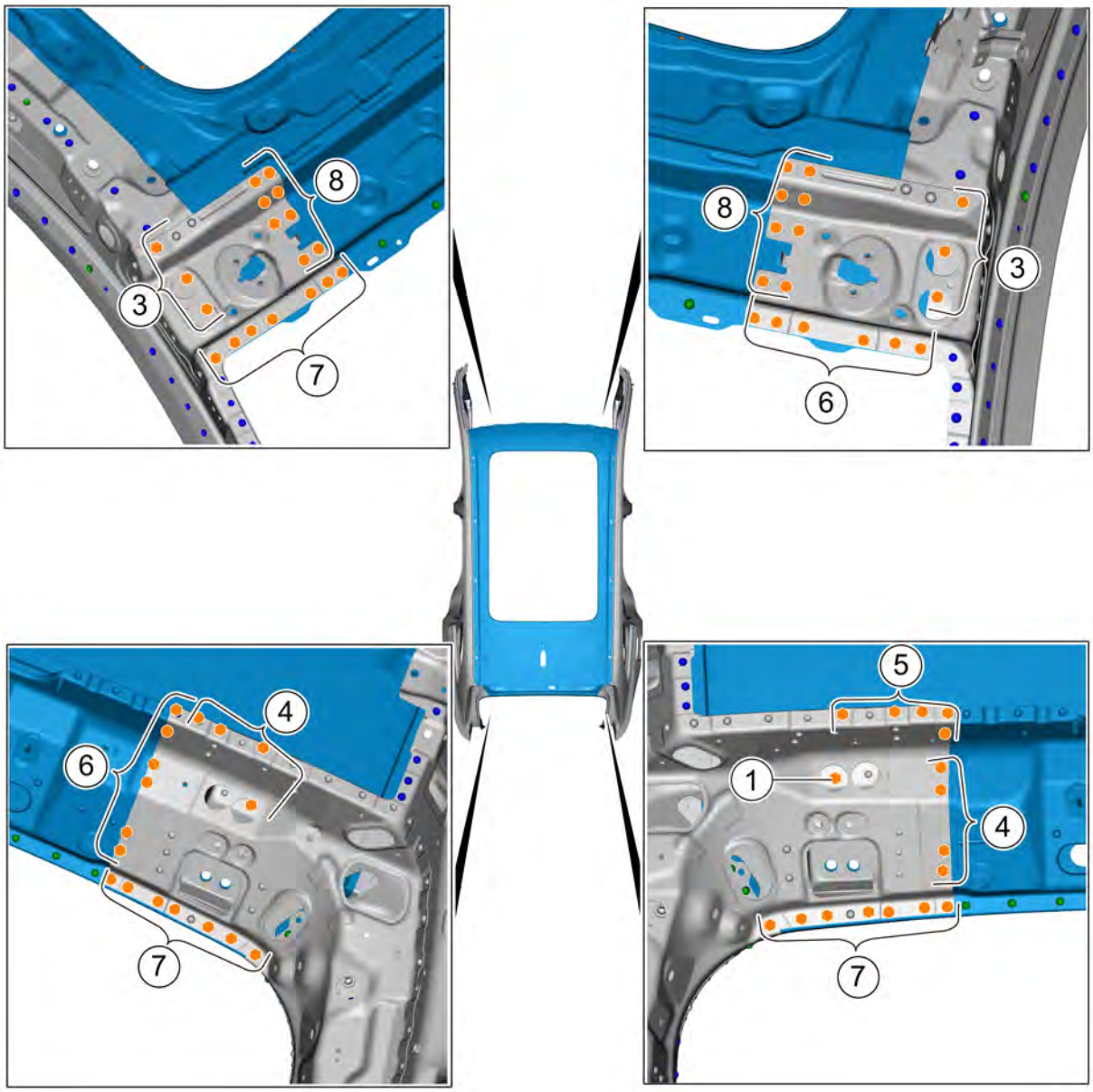
4.2.44 Mounting of panel roof assembly (with sunroof)

4.2.44.1 Mounting of panel roof assembly (with sunroof)

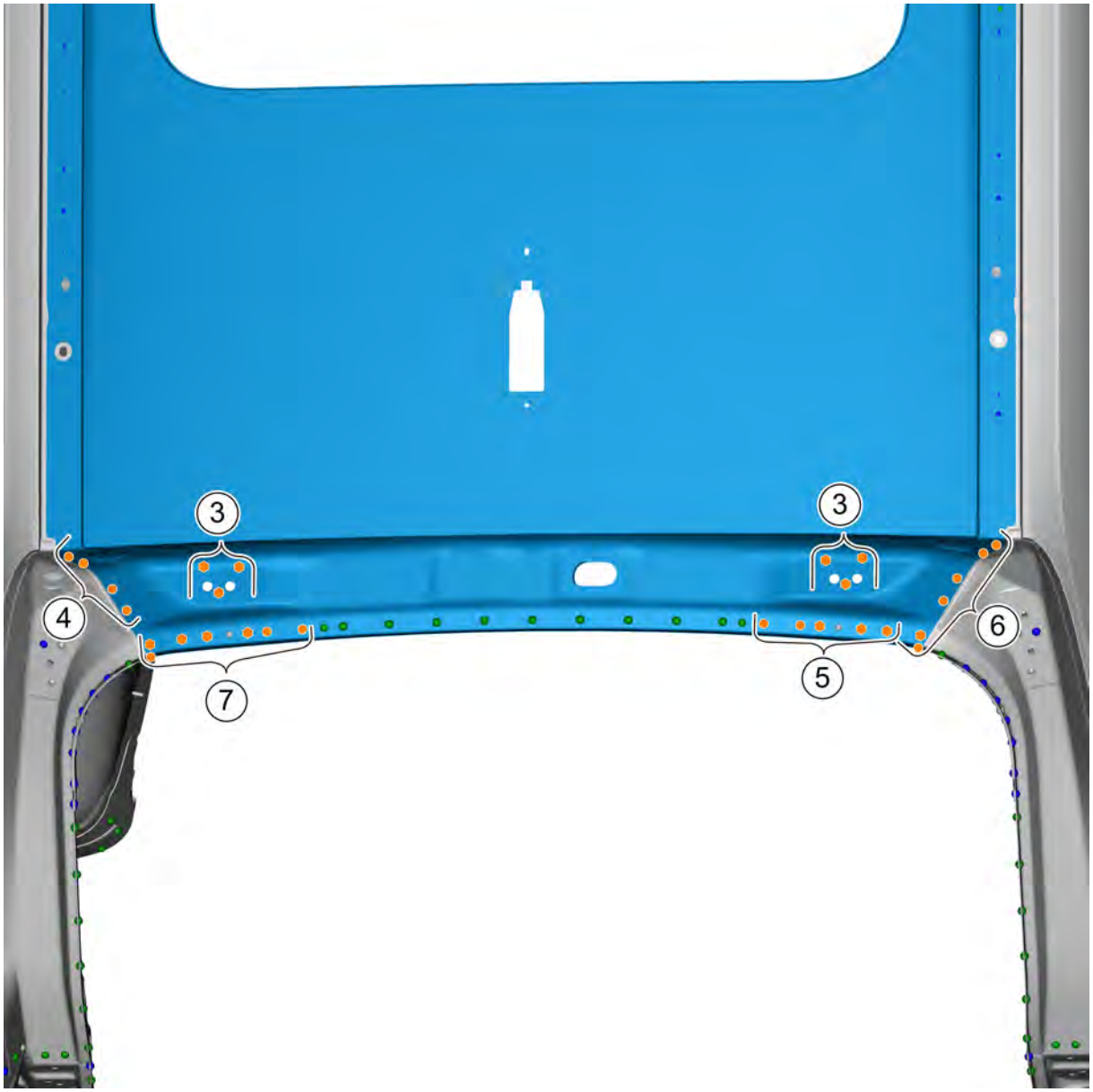
1. When mounting new parts, measure and adjust the body as needed to meet standard dimensions.
2. After temporarily mounting new parts, make sure that the related parts are properly connected.
3. Mount the fixing bolt arrows connecting the panel roof assembly (panoramic sunroof) and the left and right side wall assemblies.



4. Mount the fixing points between the front and rear crossmember assemblies of the roof and the left and right side wall assemblies.



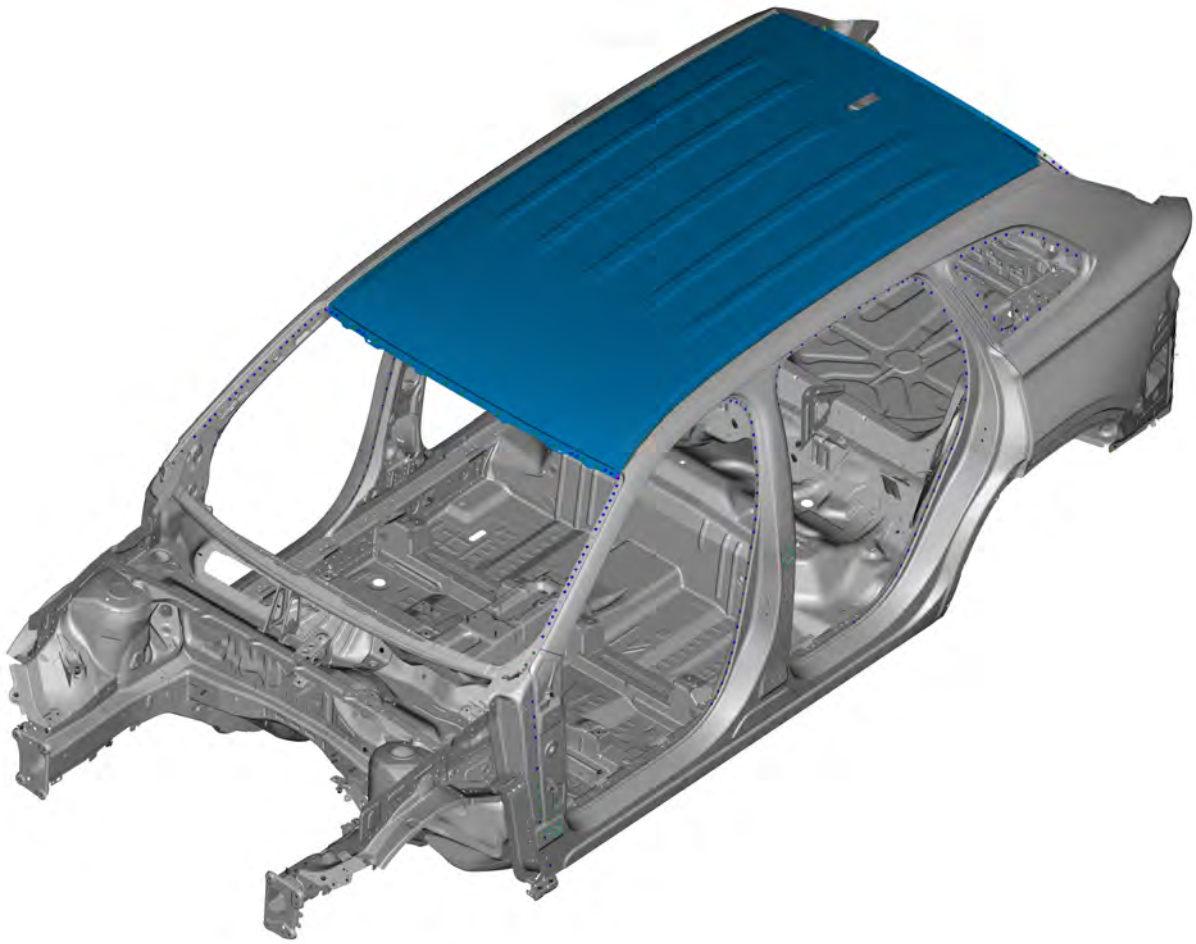
5. Mount the fixing points between the rear of panel roof assembly (panoramic sunroof) and the left and right side wall assemblies.



4.2.45 Removal of panel roof assembly (without sunroof)

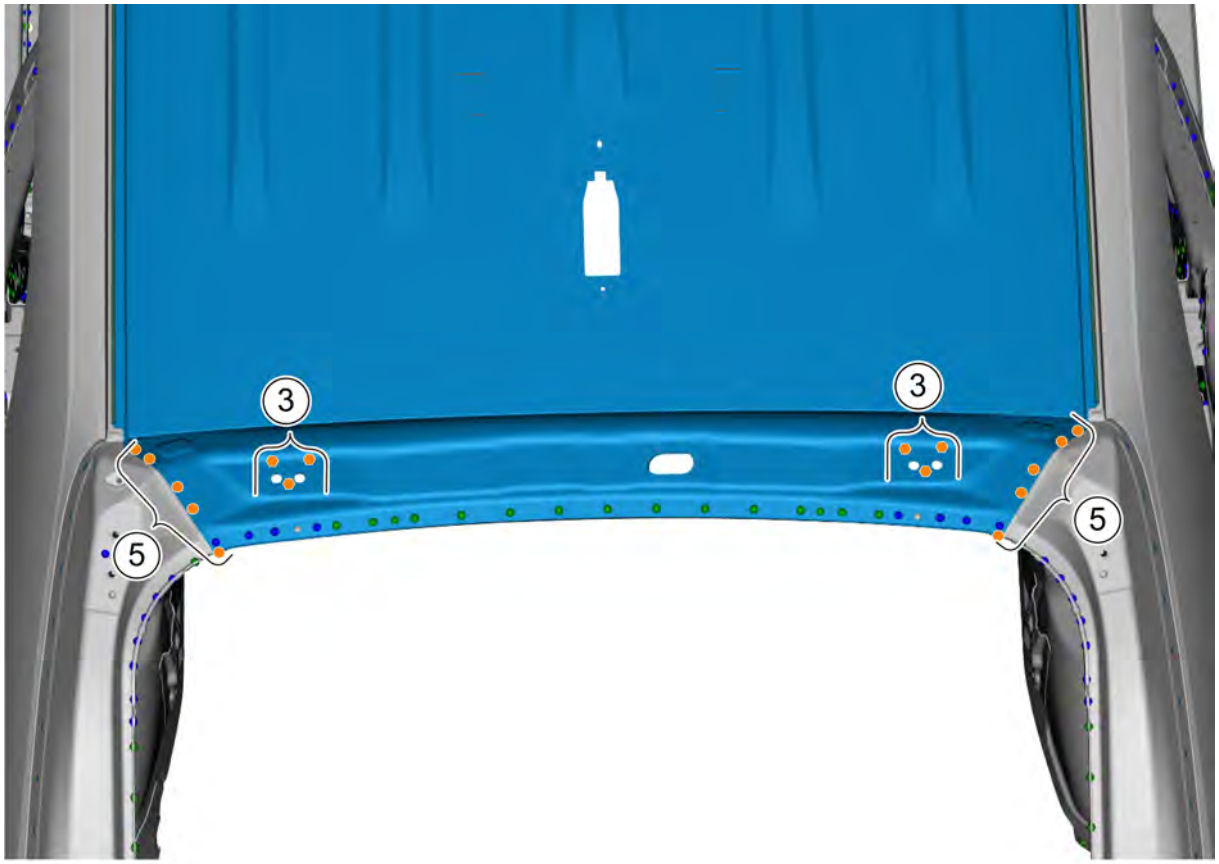
4.2.45.1 Removal of panel roof assembly (without sunroof)

Positions of components in the vehicle

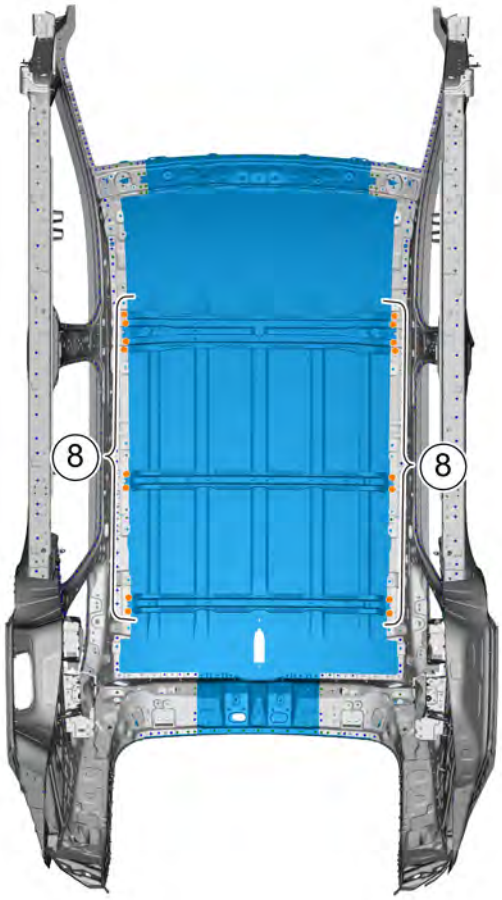


Component Disassembly

1. After drilling holes at the welding spots shown in the figure below, remove the fixing points between the panel roof assembly and the left & right side wall assemblies.



2. After drilling holes at the welding spots shown in the figure below, remove the fixing points between the panel roof assembly and the left & right side wall assemblies.



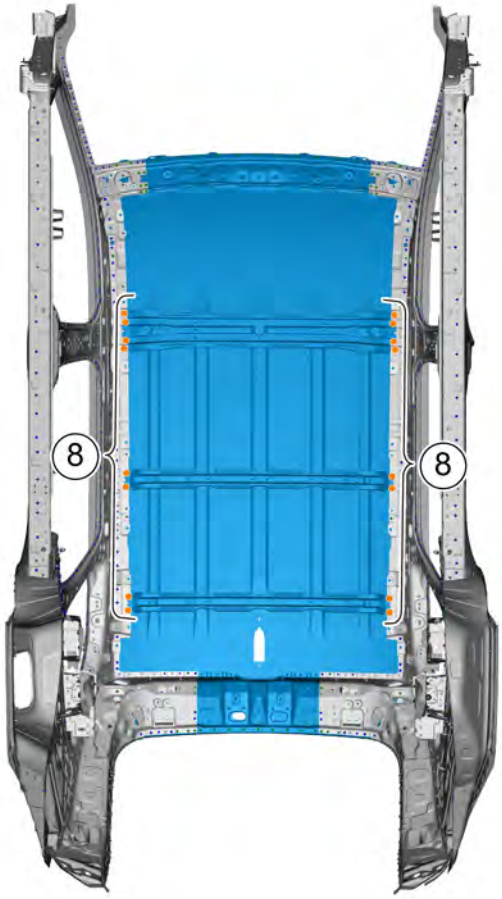
3. After drilling holes at the welding spots shown in the figure below, remove the fixing points between the panel roof assembly and the left & right side wall assemblies.

4.2.46 Mounting of panel roof assembly (without sunroof)

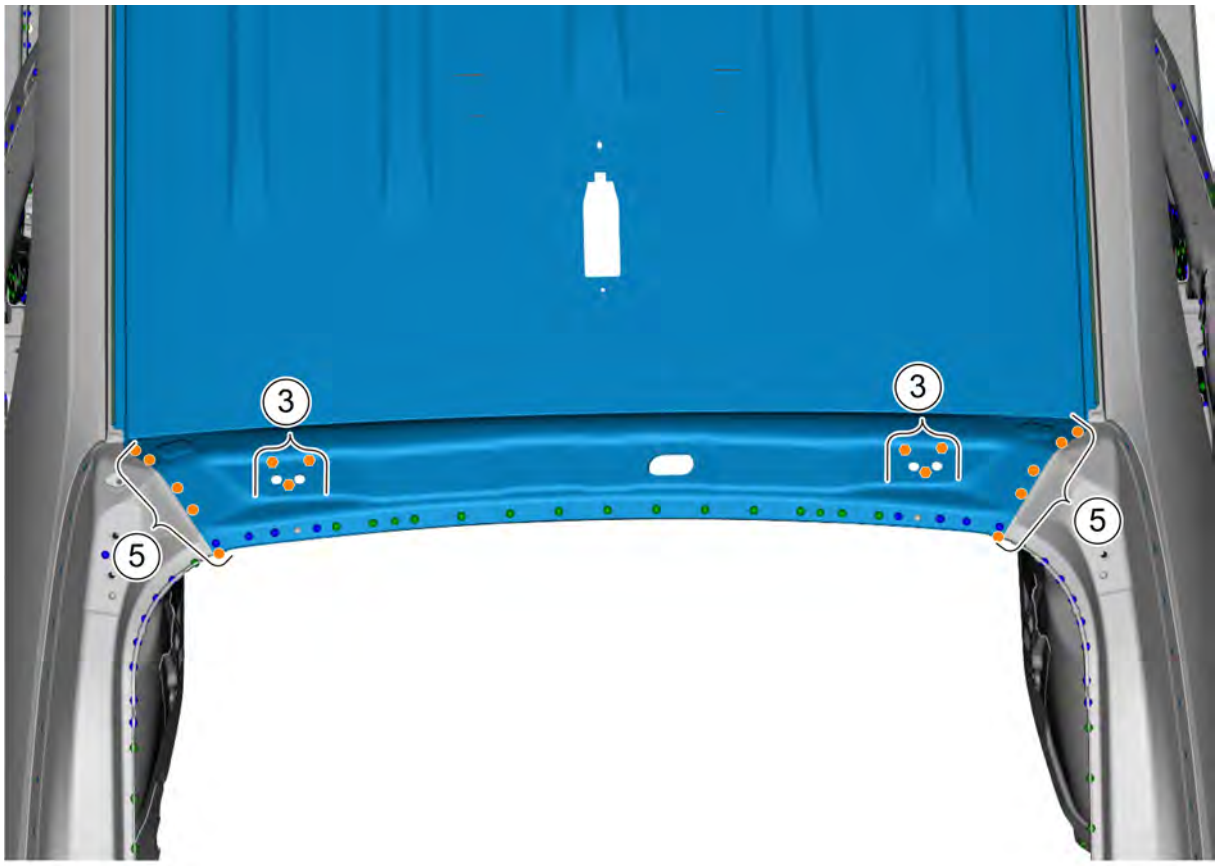
4.2.46.1 Mounting of panel roof assembly (without sunroof)

1. When mounting new parts, measure and adjust the body as needed to meet standard dimensions.
2. After temporarily mounting new parts, make sure that the related parts are properly connected.
3. Mount the fixing points between the front and rear crossmember assemblies of the roof and the left and right side wall assemblies.

4. Mount the fixing points between the panel roof assembly (without sunroof) and the left and right side wall assemblies.



5. Mount the fixing points between the rear of panel roof assembly (without sunroof) and the left and right side wall assemblies.



4.3 Body structure (waterproof and anti-rust treatment)

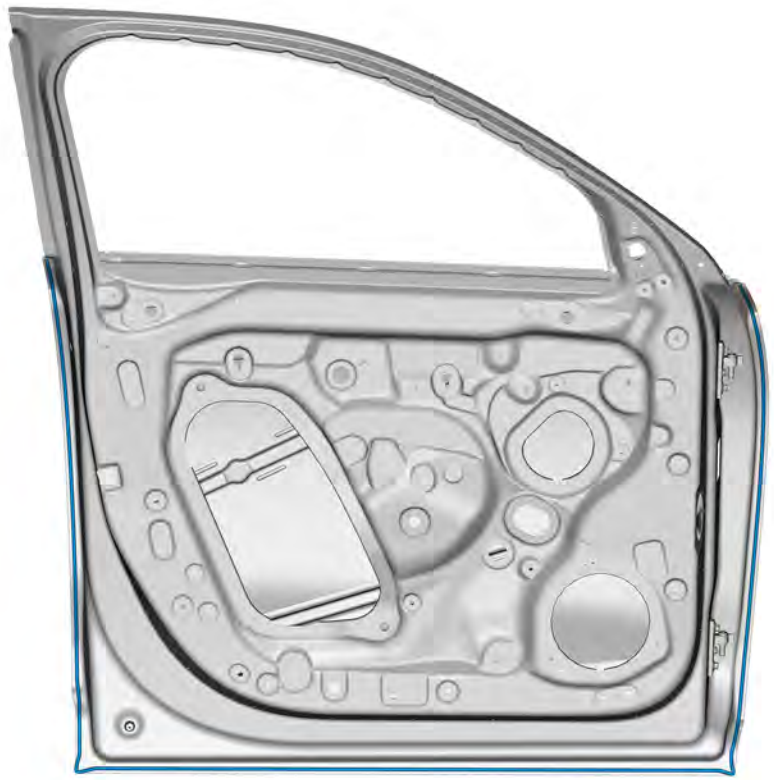
4.3.1 Body sealing materials

4.3.1.1 Body sealing materials

Apply the sealant to the joint part of the plates for waterproof and rust prevention.

Sealant application positions on the engine hood

Sealant application positions on front doors.



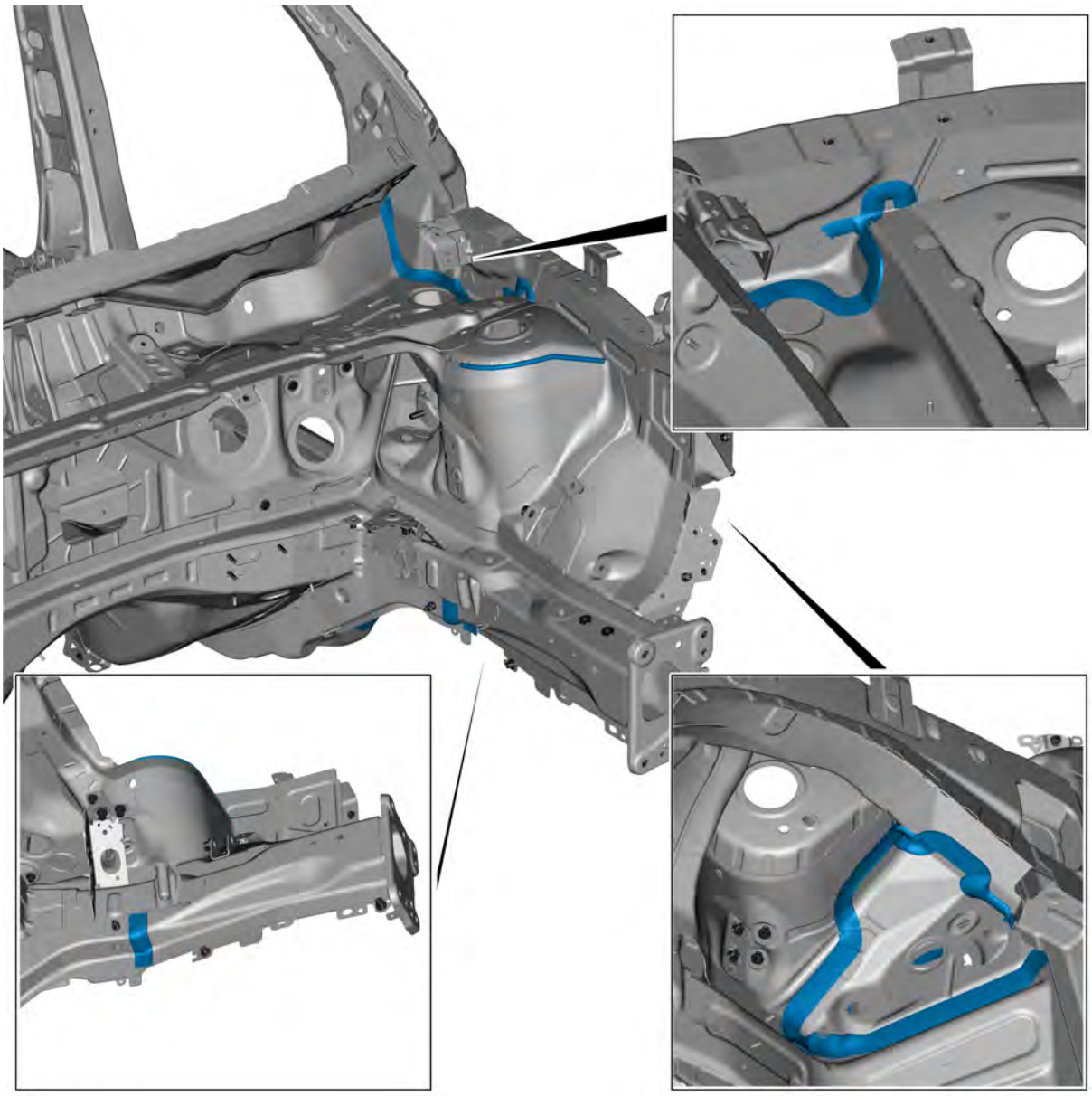
Sealant application positions on rear doors.

Sealant application positions on the backdoor.

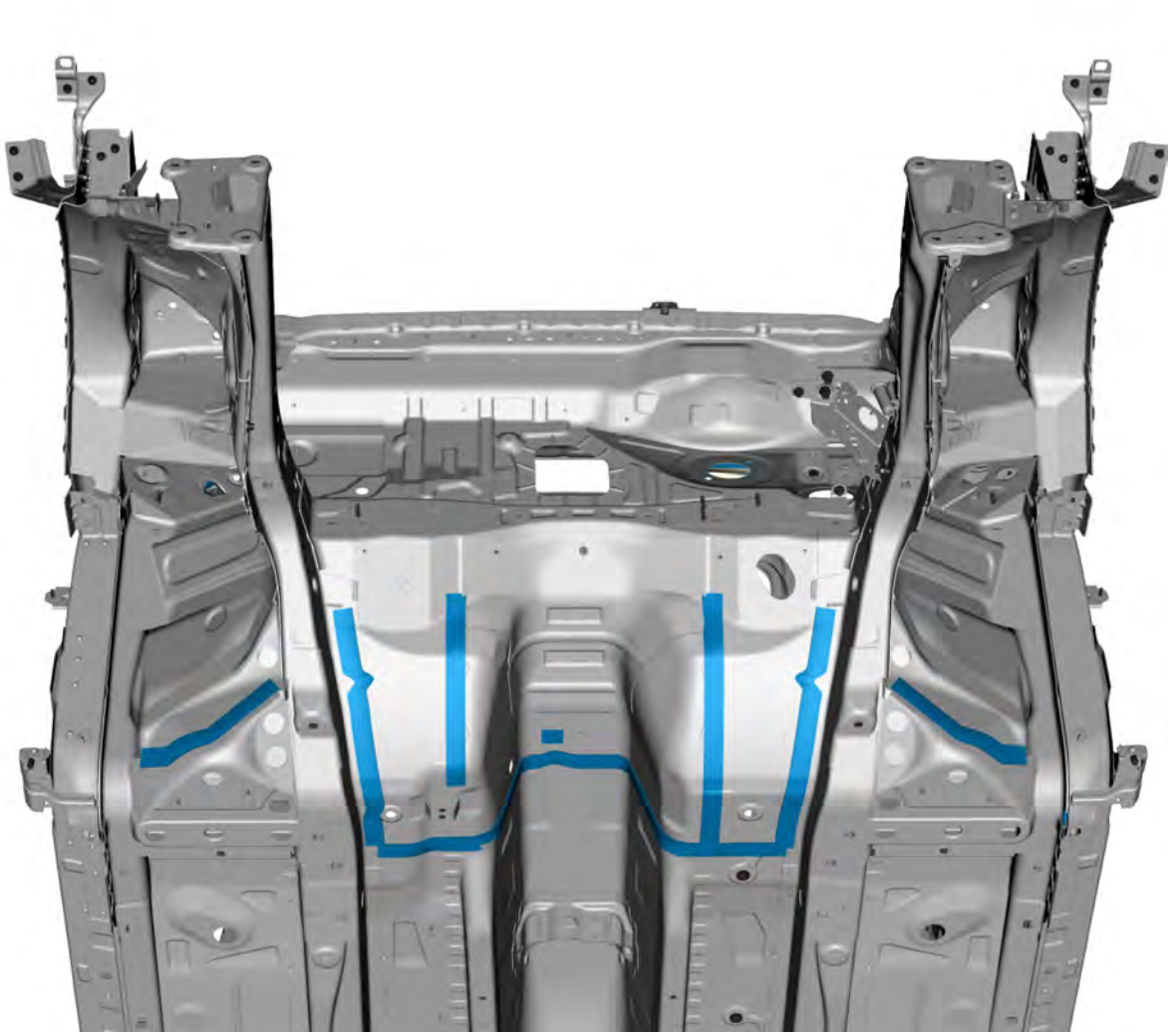
Sealant application position on left side member

Caution

The left and right glue application positions are symmetrical



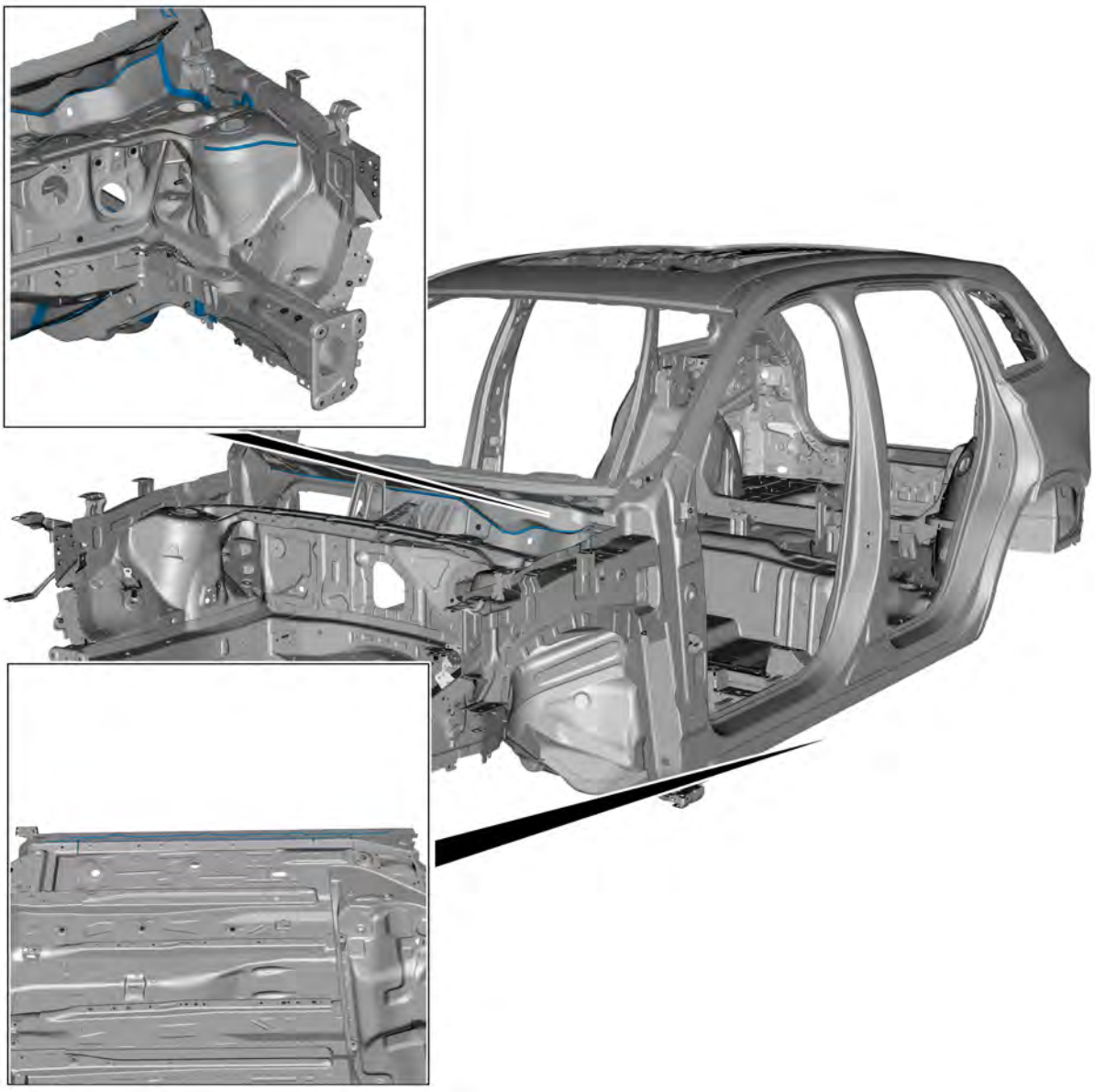
Sealant application position at the lower side of the front engine compartment



Sealant application positions on front engine compartment upper and the floor side rails.

Caution

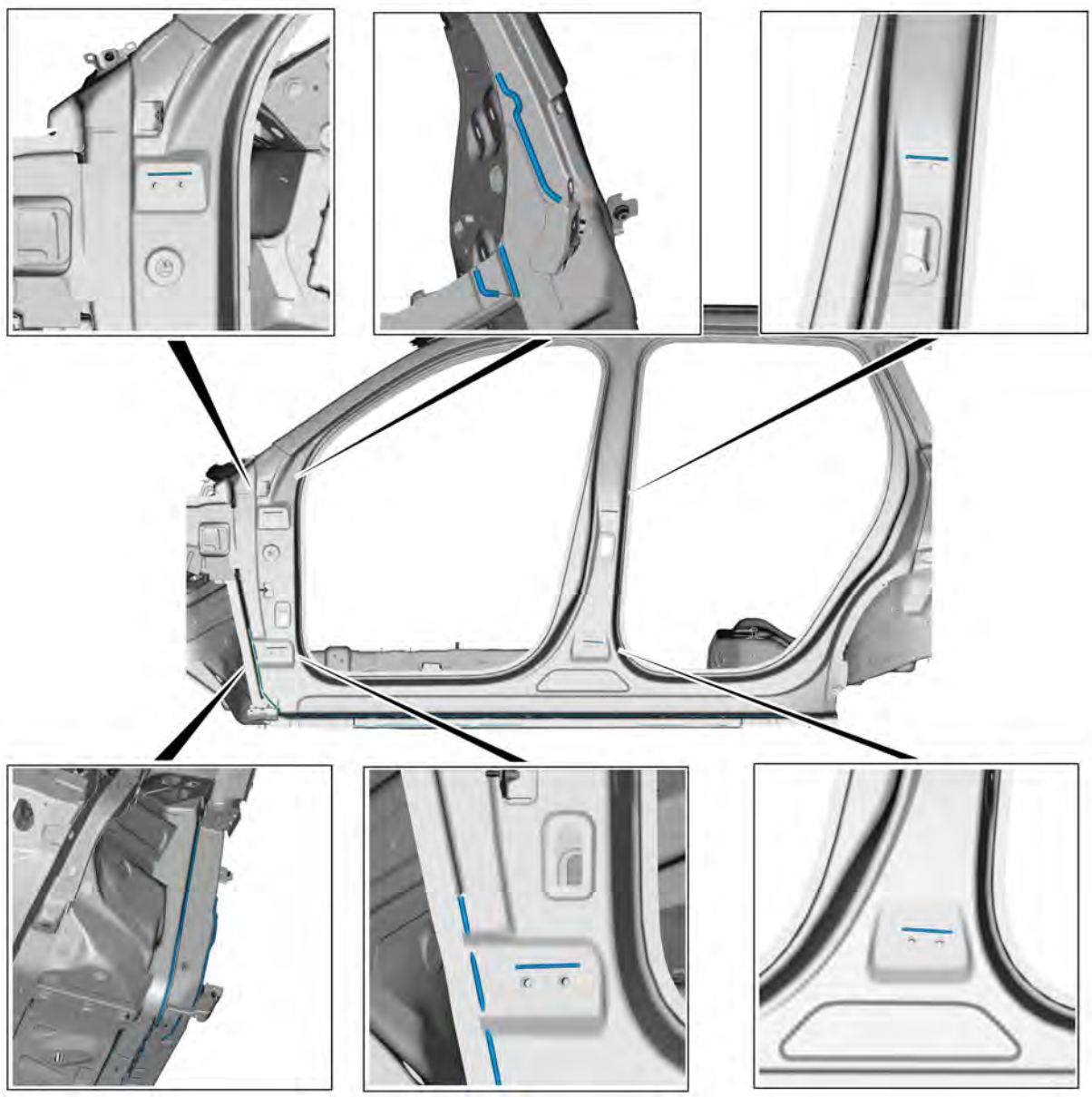
The left and right glue application positions are symmetrical



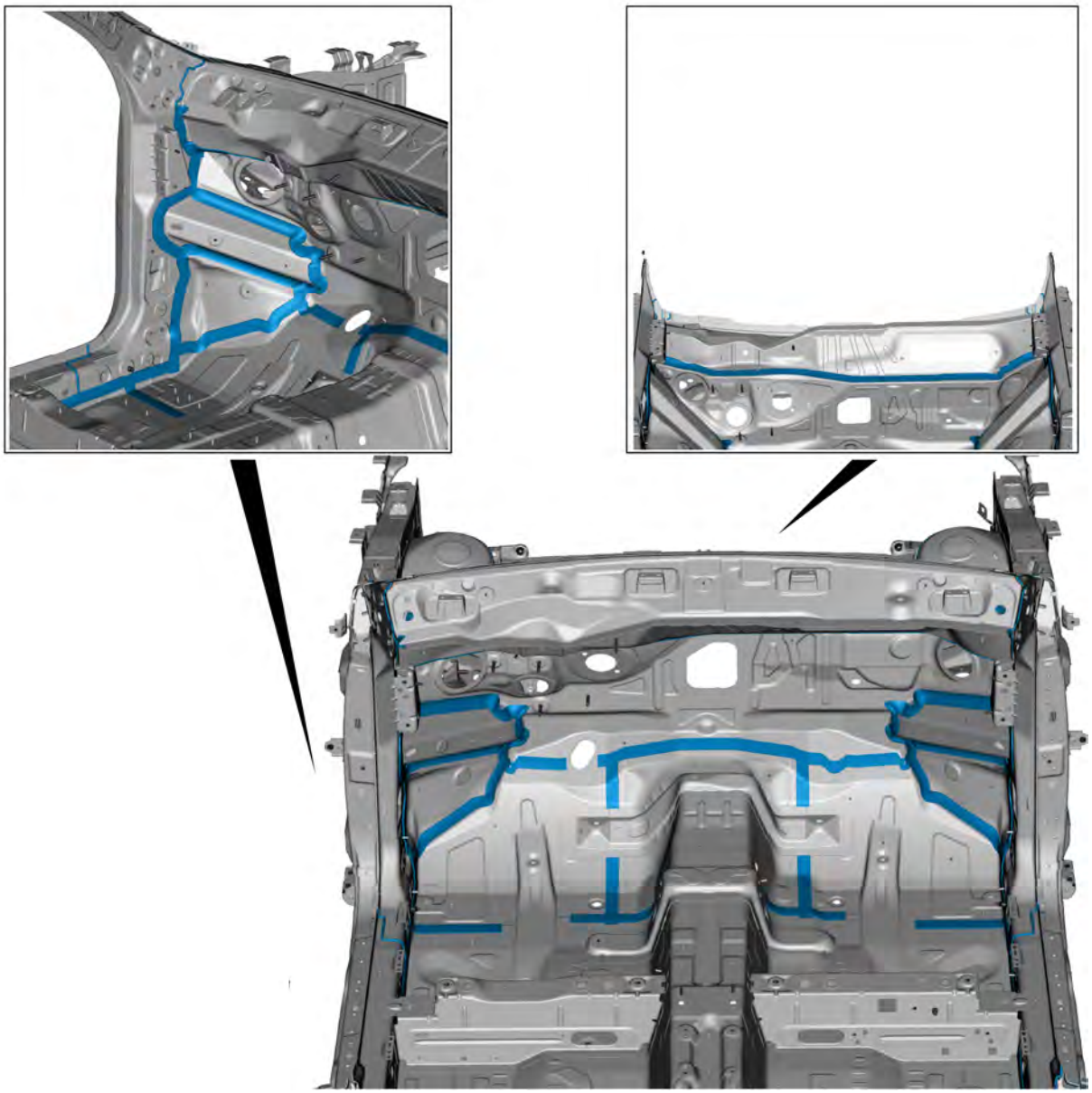
Sealant application positions on side wall mounting bracket

Caution

The left and right glue application positions are symmetrical



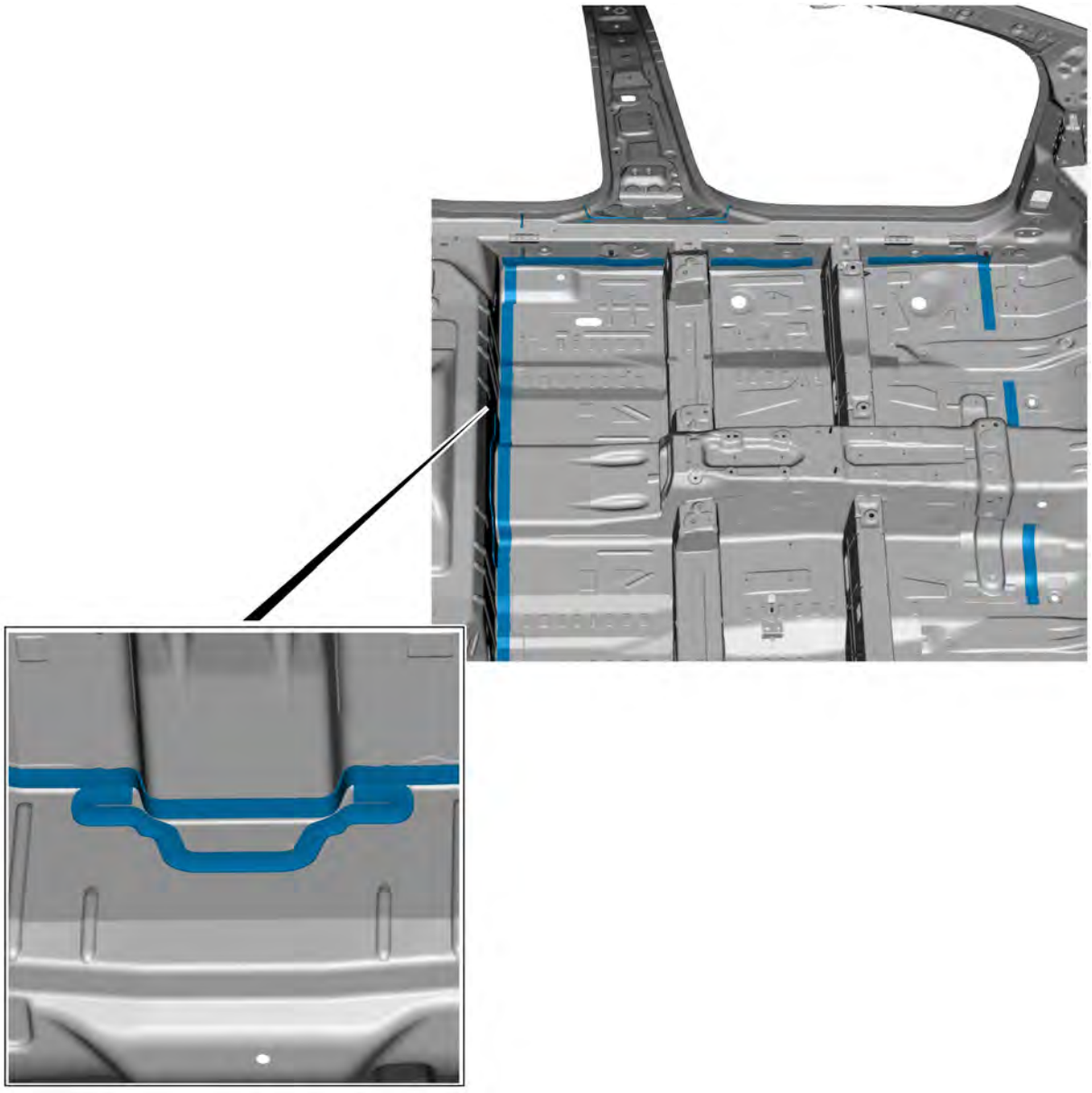
Sealant application positions on front wall and sides and front floor



Sealant application positions front floor

Caution

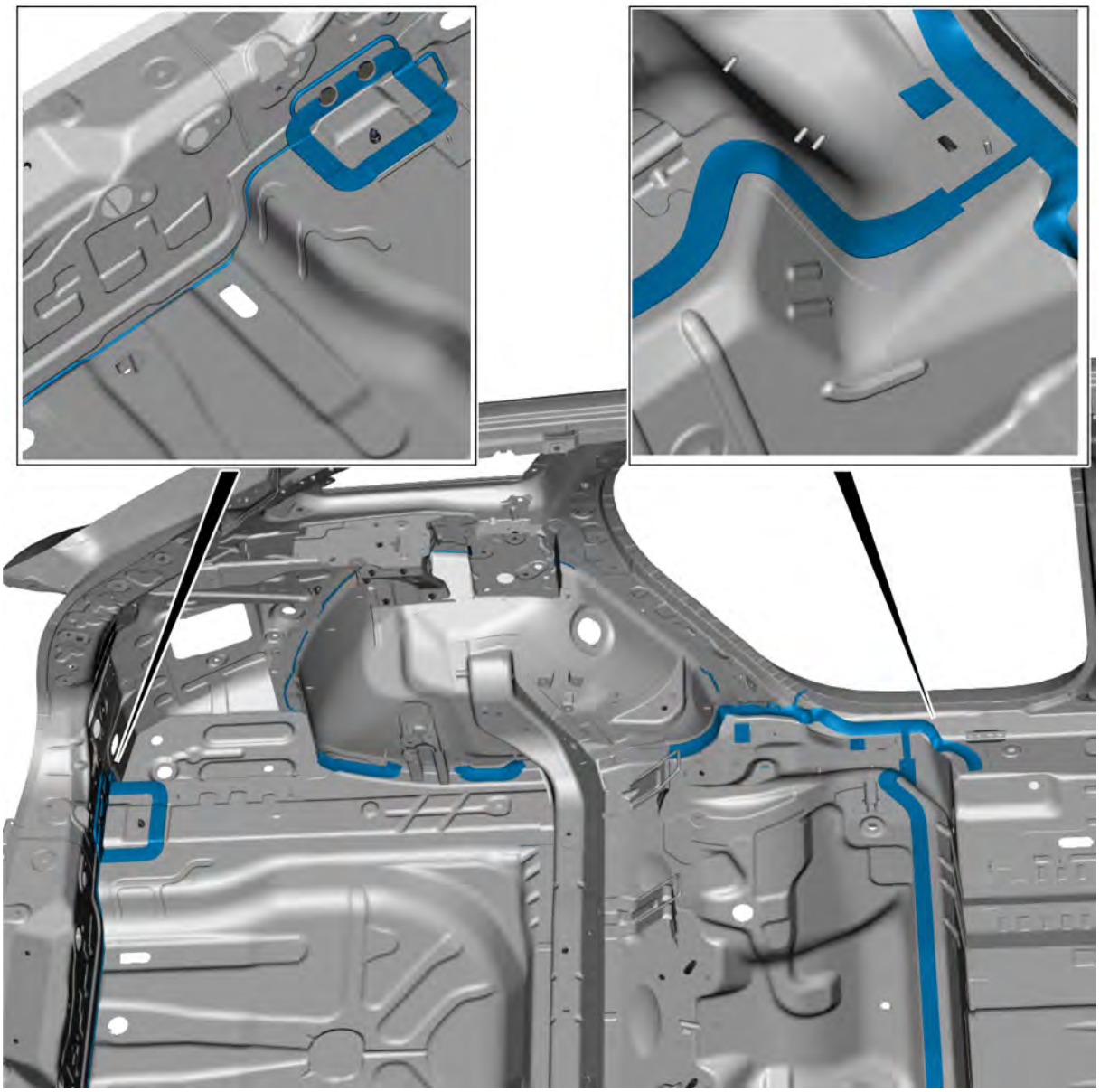
The left and right glue application positions are symmetrical



Sealant application positions on rear floor.

Caution

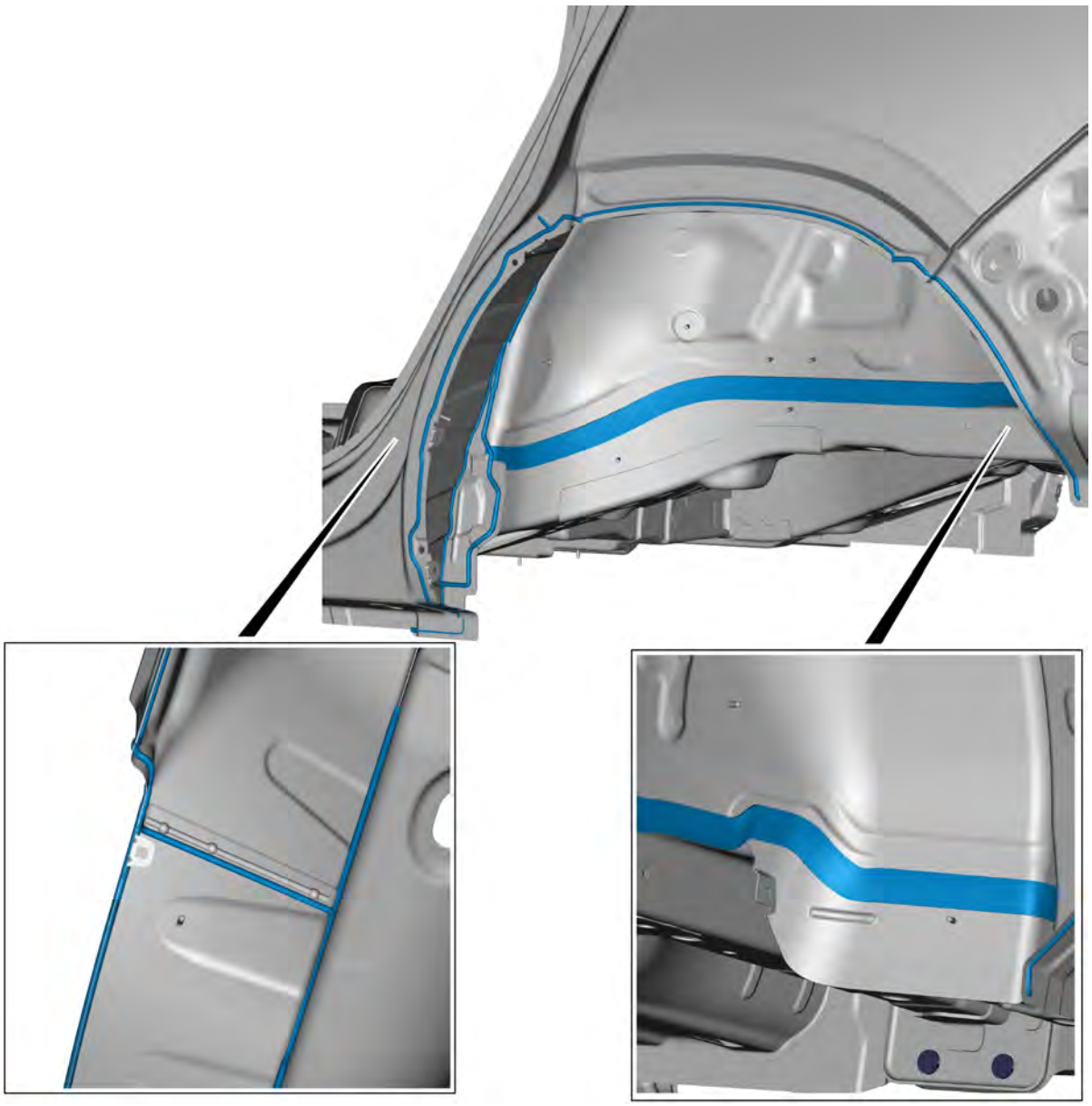
The left and right glue application positions are symmetrical



Sealant application positions on rear wheel arch.

Caution

The left and right glue application positions are symmetrical



Sealant application positions on body floor

Sealant application positions on rear wall.

Sealant application positions on roof.

4.3.2 Anti stone material

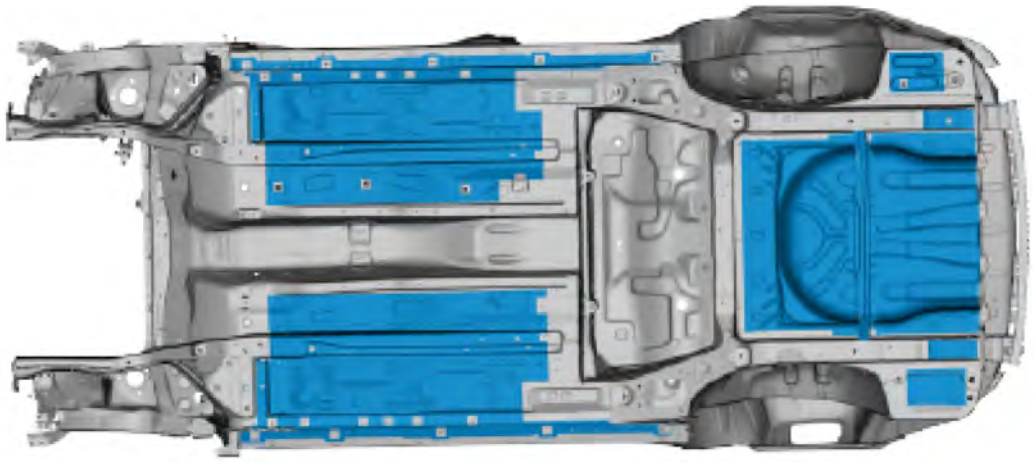
4.3.2.1 Positions of stone chip resistant materials

Stone-chip resistant materials

The stone-chip resistant paint is a coating used to protect the lower part of the vehicle body and reduce the damage caused by the impact of flying rocks. The stone-chip resistant paint is sprayed on the lower surface of the floor and the front and rear wheel arches to buffer the impact of sand, stones and other objects brought up by the vehicle running at a high speed on the chassis, reduce the noise in the vehicle, and improve the comfort of driving.

The shaded area in the figure below is the protective coating of stone-chip resistant paint

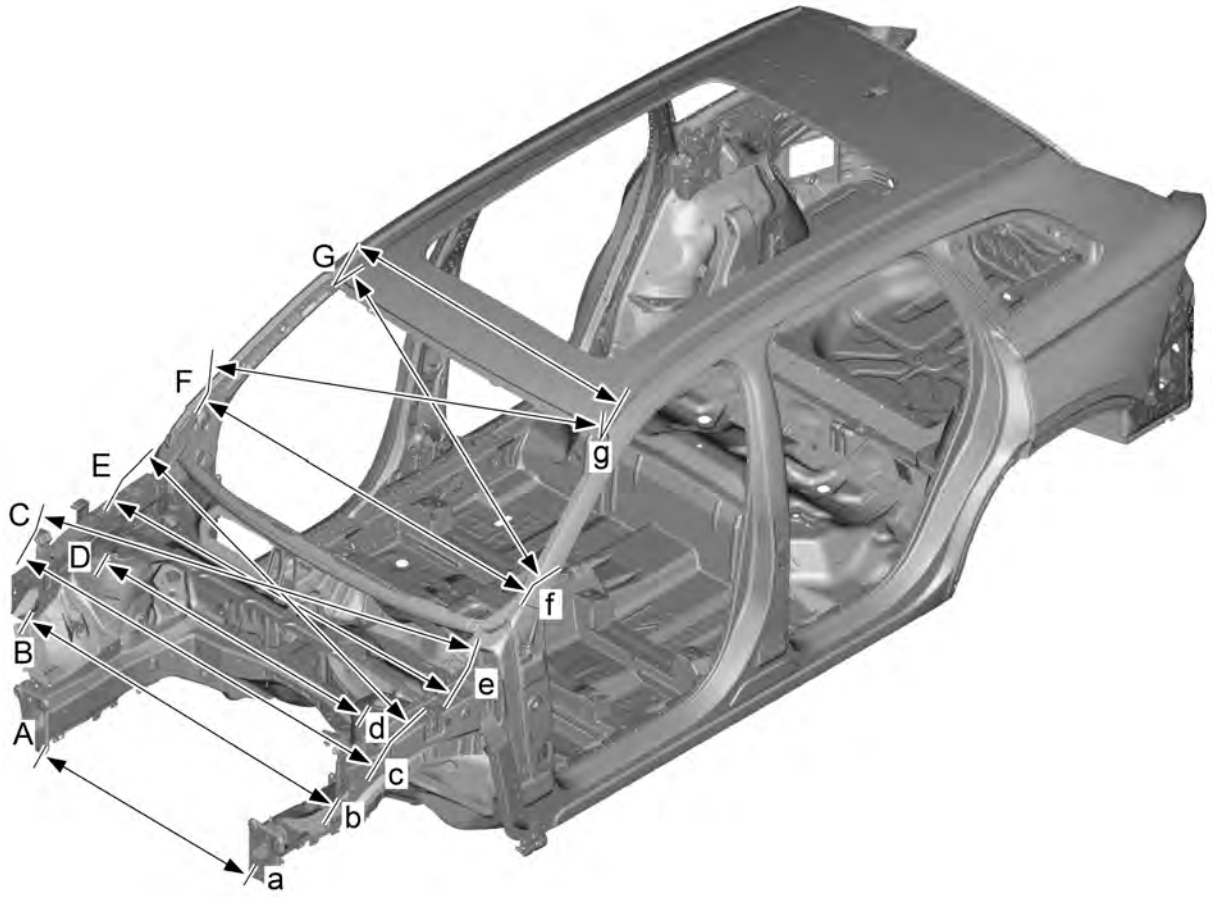
Positions of stone-chip resistant materials at body bottom



4.4 Body structure (dimensions)

4.4.1 Dimensions of body front

4.4.1.1 Dimensions of body front

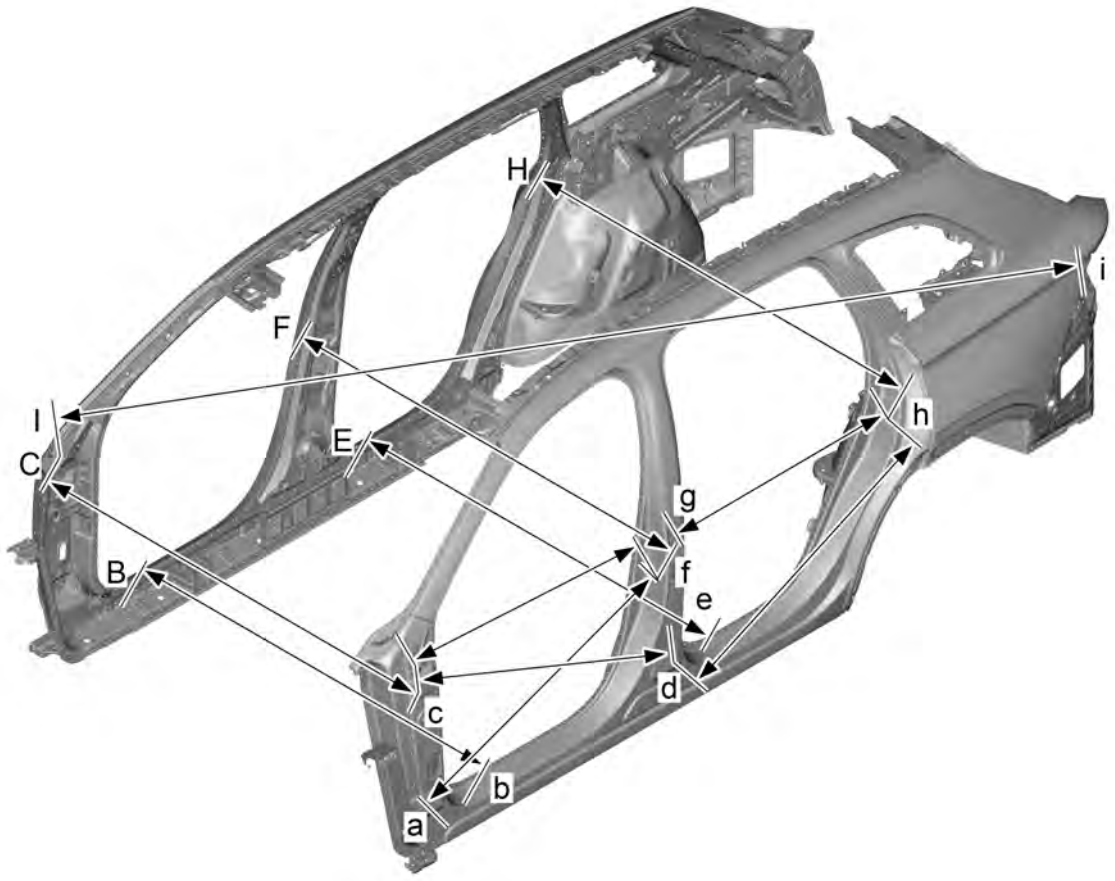


Position	Dimensions	Nominal dimensions (mm)	Difference
Mounting hole of front crossmember	A-a	954.0	±1.5
Upper mounting hole of water tank	B-b	1346.6	±1.5
Front bracket mounting hole of fender	C-c	1612.0	±1.5
Front bracket mounting hole of right fender-rear mounting hole of hood hinge LH	C-e	1600.8	±1.5
Front damper mounting hole	D-d	1177.3	±1.5

Position	Dimensions	Nominal dimensions (mm)	Difference
Engine hood hinges mounting hole	E-e	1532.0	±1.5
Rear mounting hole of right hood hinges-mounting hole of front bracket left fender	E-c	1600.8	±1.5
Side wall outer panel/upper joint of front wall	F-f	1494.6	±1.5
Side wall outer panel/upper joint of front wall (right)-side wall outer panel/roof joint (left)	F-g	1466.6	±1.5
Side wall outer panel / roof junction	G-g	1466.6	±1.5
Side wall outer panel/roof joint (right)-side wall outer panel/upper joint of front wall (left)	G-f	1466.6	±0.5

4.4.2 Dimensions of body middle

4.4.2.1 Dimensions of body middle

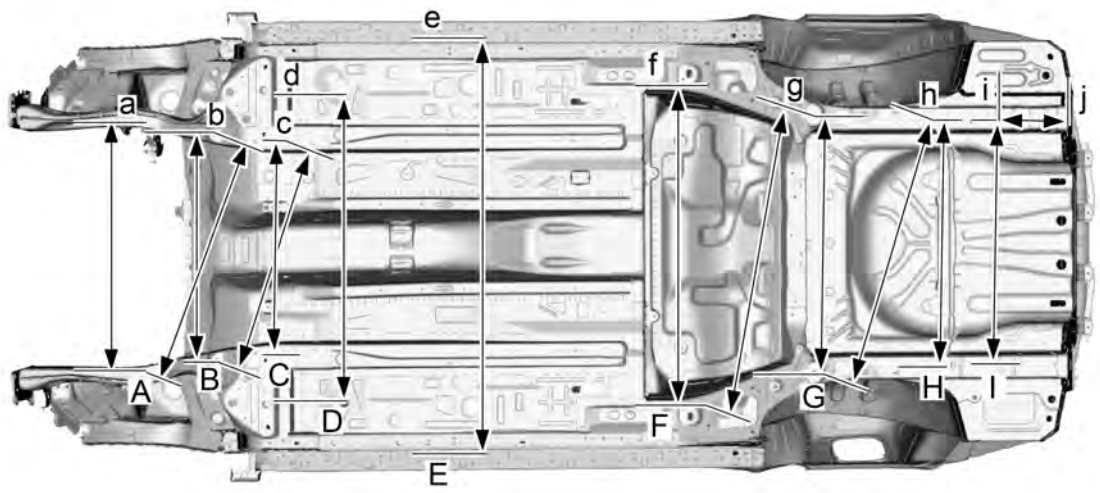


Position	Dimensions	Nominal dimensions (mm)	Difference (±)
Lower hinge mounting hole of front door (left) –lock catch mounting hole of front door (left)	a-f	1099.3	±1.5
Measuring mark on the bottom of the front door hole	b-B	1510.0	±1.5
Upper hinge mounting hole of front door (left) –upper hinge mounting hole of front door (right) –@@	c-C	1616.8	±1.5

Position	Dimensions	Nominal dimensions (mm)	Difference (±)
Upper hinge mounting hole of front door (left) –lower hinge mounting hole of rear door (left)	c-d	1182.2	±1.5
Upper hinge mounting hole of front door (left) –lock catch mounting hole of front door (left)	c-f	1172.7	±1.5
Rear door lower hinge mounting hole (left)-rear door lock catch mounting hole (left)	d-h	1072.0	±1.5
Measuring mark of the bottom of the rear door hole	e-E	1510.0	±1.5
Front door lock catch mounting hole (left)-front door lock catch mounting hole (right)	f-F	1606.2	±1.5
Upper hinge mounting hole of rear door (left) –lock catch mounting hole of rear door (left)	g-h	939.5	±1.5
Rear door lock catch mounting hole (left)-rear door lock catch mounting hole (right)	h-H	1606.5	±1.5
Upper hinge mounting hole of front door (right) – rear combination lamp mounting hole (left)	i-C	3364.3	±1.5

4.4.3 Dimensions of body bottom

4.4.3.1 Dimensions of body bottom

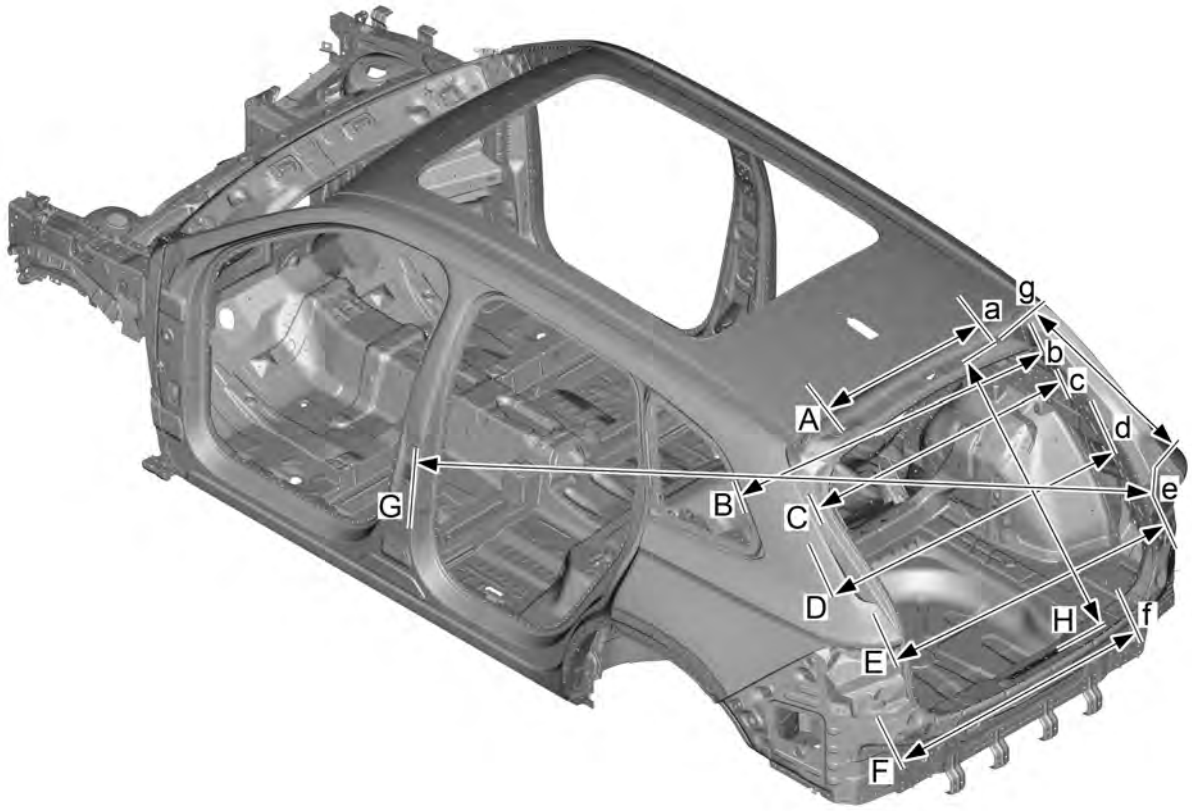


Position	Dimensions	Nominal dimensions (mm)	Difference (±)
Front mounting hole of front subframe	A-a	955.0	±1.5
FR mounting hole of front subframe-middle mounting hole LH of front subframe	A-b	963.8	±1.5
Front subframe middle mounting hole	B-b	826.0	±1.5
Right middle mounting hole of front suspension-left rear mounting hole of front suspension	B-c	839.2	±1.5

Position	Dimensions	Nominal dimensions (mm)	Difference (±)
Rear mounting hole of front subframe	C-c	770.0	±1.5
FL floor positioning hole – FR floor positioning hole	D-d	1140.0	±1.5
Right door sill outer plate positioning hole-left door sill outer plate positioning hole	E-e	1536.2	±1.5
Rear subframe towing arm mounting hole	F-f	1184.8	±1.5
Right towing arm mounting hole of rear subframe-front left mounting hole of rear subframe	F-g	1164.3	±1.5
Front mounting hole of rear subframe	G-g	974.0	±1.5
FR mounting hole of rear subframe-RL mounting hole of rear subframe	G-h	1074.5	±1.5
Rear mounting hole of rear subframe	H-h	955.0	±1.5
Rear side member locating hole	I-i	927.0	±1.5
Rear side member positioning hole – rear wall panel	i-j	371.3	±1.5

4.4.4 Dimensions of body rear

4.4.4.1 Dimensions of body rear



Position	Dimensions	Nominal dimensions (mm)	Difference (±)
Left mounting hole of back door (right) hinge	A-a	694.0	±1.5
Rear triangular window glass middle D pillar trim panel mounting hole	B-b	1364.0	±1.5
Backdoor stay mounting hole	C-c	1132.5	±1.5
Rear seat belt retractor bracket supporting plate mounting hole	D-d	1311.0	±1.5
Rear combination lamp mounting hole	E-e	1185.5	±1.5

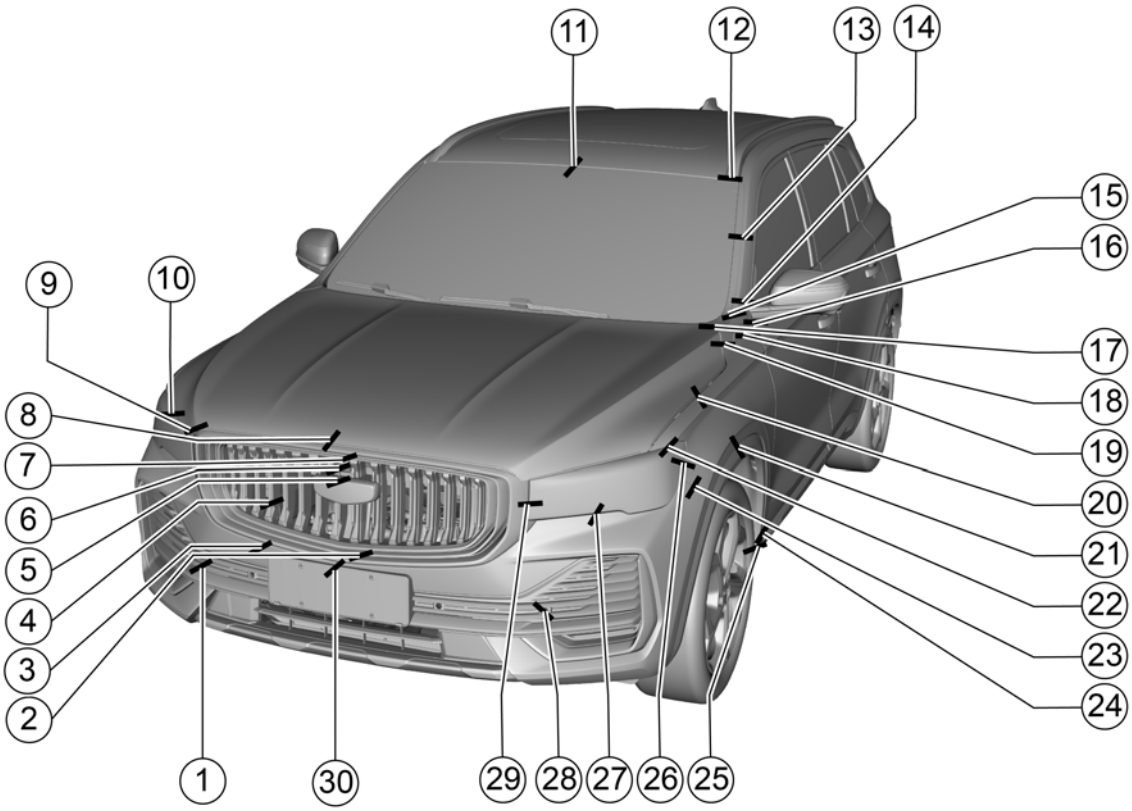
Position	Dimensions	Nominal dimensions (mm)	Difference (±)
Rear crossmember assembly mounting hole	F-f	1086.0	±1.5
Backdoor (right) hinge left mounting hole-boot lid lock catch mounting hole (right)	a-h	1024.0	±1.5
Rear combination lamp mounting hole (right)-rear door upper hinge mounting hole (left)	e-G	2416.5	±1.5
Rear combination lamp mounting hole (right)-back door (right) hinge right mounting hole	e-g	734.0	±1.5

4.4.5 Body surface clearance

4.4.5.1 Clearance between body surfaces

• To adjust or check the clearance dimensions, a plastic clearance adjustment gauge should be used.

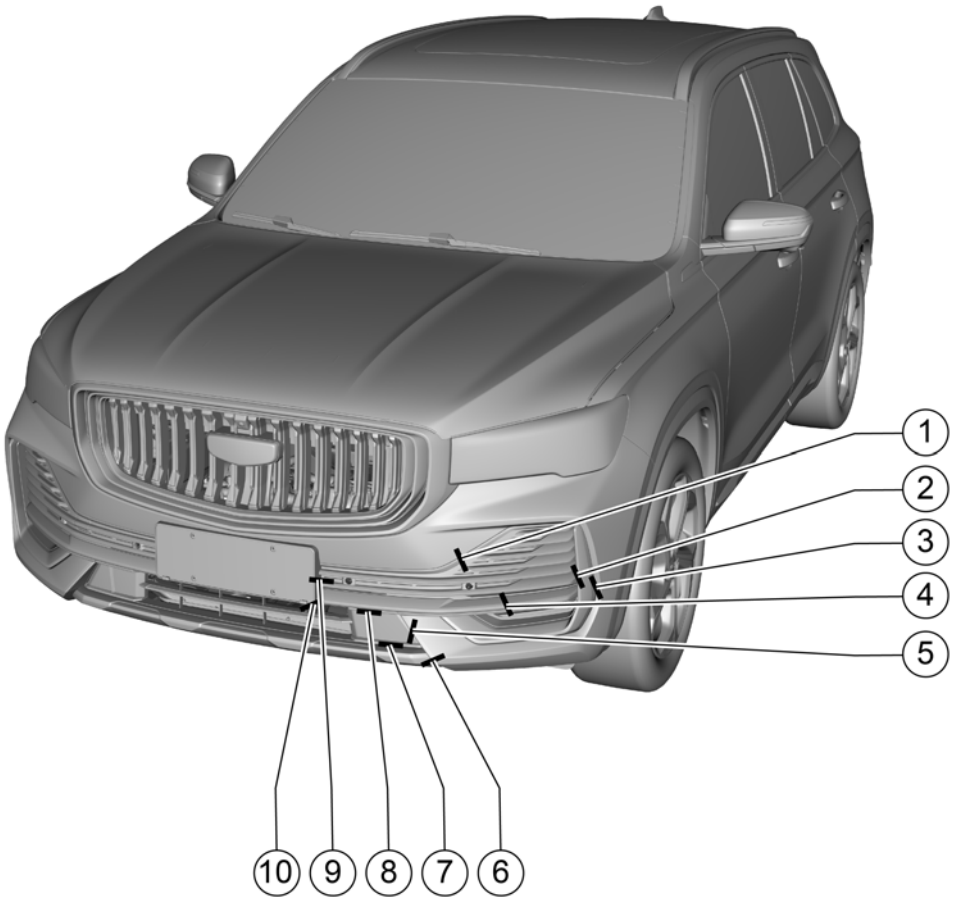
• Clearance dimensions are always in mm / inch.



Code	Part Name (benchmark)	Relevant Part Name	Specifications				
			Clearance	Tolerance	Degree of uniformity	Symptom	Alignment
1	Front bumper	Towing hook cover plate	0.5±0.5	-0.5±0.5	/	/	/
2	Front grille	Grille chrome	0.5 ± 0.5 (cyclic)	/	0.5	/	/
3	Front bumper	Front grille	0.7±0.5	/	0.5	/	/

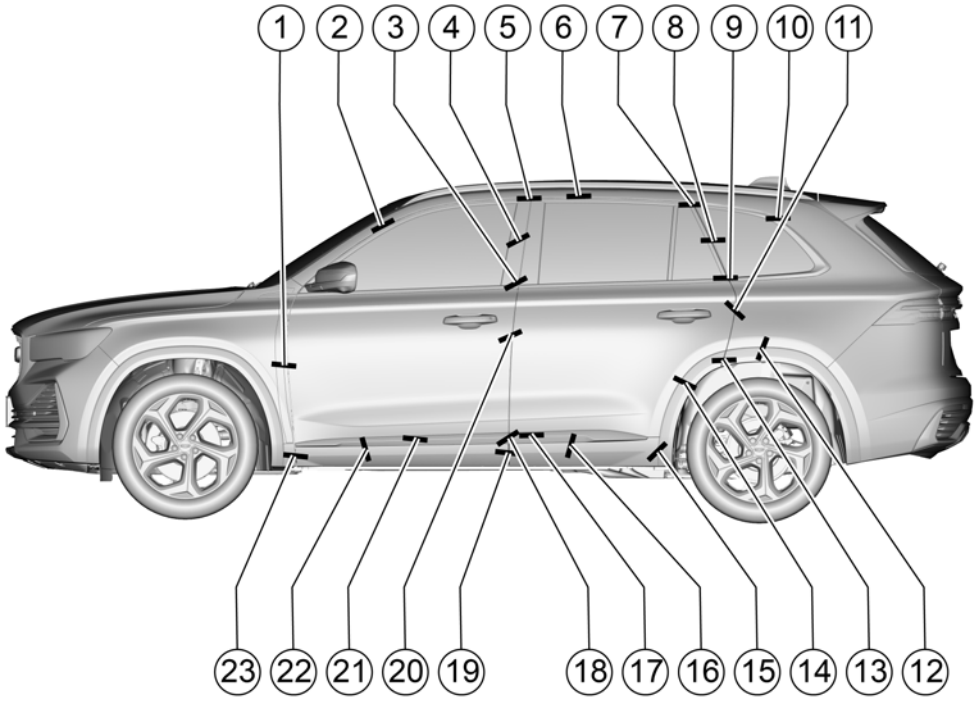
Code	Part Name (benchmark)	Relevant Part Name	Specifications				
			Clearance	Tolerance	Degree of uniformity	Symptom	Alignment
4	Front grille	Grille vertical strip	0.5±0.5	/	0.5	/	/
5	Grille	Logo	0.5 ± 0.3 (cyclic)	/	/	/	/
6	Camera	Camera cover	0.2 ± 0.2 (cyclic)	/	/	/	/
7	Camera cover	Front grille (high and low configura-tion)	0.5 ± 0.5 (cyclic)	/	/	/	/
8	Front grille	Cover	5.6	/	/	/	/
9	Front grille	Cover	5.8±1.2	/	/	1.2	/
10	Headlamps	Cover	6	/	/	/	/
11	Roof	Front windshield	2.5±1.0	/	1	/	/
12	Roof rack	Front windshield	4.0±1.2	/	/	/	/
13	Side wall	Front windshield side trim strip	/	-1.0±1.2	1.2	/	/
14	Side wall A-pillar	Fender	2.2	/	/	/	/
15	Fender	Front windshield trim strip	/	-1.0±1.2	/	/	/
16	Front door outer window slot	Fender trim strip	3.5±1.0	0±1.0	1	/	/
17	Fender	Front hood (upper rear end)	3.2	0±0.8	0.5	0.8	/
18	Fender	Fender trim strip	0.5±0.5	0.5	/	/	/
19	Fender	Cover (corner)	3.2	-0.3±0.8	0.5	0.8	/
20	Fender	Cover	3.0±0.8	/	1	1	/
22	Fender	Front wheel brow	0.1	/	/	/	/

Code	Part Name (benchmark)	Relevant Part Name	Specifications				
			Clearance	Tolerance	Degree of uniformity	Symptom	Alignment
22	Fender	Headlamps	5.9→7.8→1-.2±1.0	/	/	/	/
23	Fender	Front bumper	-0.2	/	/	/	/
24	Fender	Front wheel brow rear trim panel	0.1	/	/	/	/
25	Front wheel brow	Front wheel brow rear trim panel	0.5±0.5	/	/	/	/
26	Fender	Headlamps	1.2±1.0	1.0	/	/	/
27	Front bumper upper body	Headlamps	2.0±1.0	N/A	/	/	/
28	Radar cover/ radar	Front bumper	0.2±0.2	0.2±0.3	/	/	/
29	Front grille	Headlamps	2.0±1.2	1.2	/	1.2	/
30	Front license plate mounting plate	Front bumper	0 (0,+0.5)	/	/	/	/



Code	Part Name (benchmark)	Relevant Part Name	Specifications				
			Clearance	Tolerance	Degree of uniformity	Symptom	Alignment
1	Front fog lamp cover	Front bumper	0.5 ± 0.5 (cyclic)	/	0.5	/	/
2	Front fog lamp cover trim strip	Front fog lamp cover	0.7±0.5	/	0.5	/	/
3	Front fog lamp cover trim strip	Front bumper	0.7±0.5	/	0.5	/	/
4	Front fog lamp cover trim strip	Front fog lamp cover	0.5 ± 0.5 (cyclic)	/	0.5	/	/

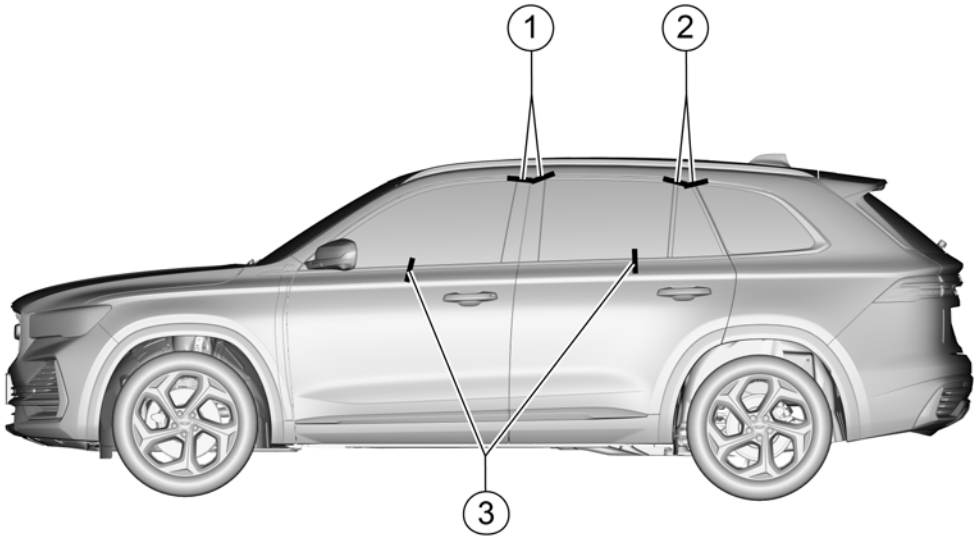
Code	Part Name (benchmark)	Relevant Part Name	Specifications				
			Clearance	Tolerance	Degree of uniformity	Symptom	Alignment
5	Front bumper lower grille	Front bumper body	0.5 ± 0.5 (cyclic)	/	0.5	/	/
6	Front bumper lower trim panel	Front bumper body	1.0 ± 0.7 (cyclic)	/	0.7	/	/
7	Front bumper lower trim panel	Front bumper lower grille	0.7±0.5	/	0.5	/	/
8	Front bumper lower trim strip	Front bumper lower grille	0.7±0.5	/	0.5	/	/
9	Front license plate mounting plate	Front fog lamp cover	0.5±0.5	/	0.5	/	/
10	Front license plate mounting plate	Front bumper lower trim strip	0.5±0.5	/	0.5	/	/

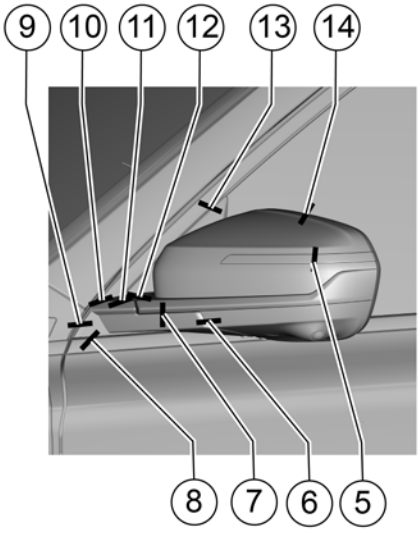


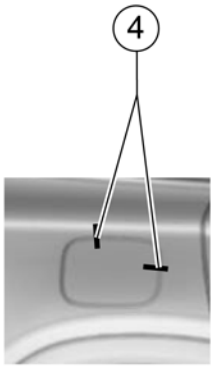
Code	Part Name (benchmark)	Relevant Part Name	Specifications				
			Clearance	Tolerance	Degree of uniformity	Symptom	Alignment
1	Front doors	Fender	3.5	0±0.5	/	/	/
2	Side wall	Front door glass guide	6	/	/	/	/
3	Rear door outer window slot	Front door outer window slot	3.8±1.0	0±1.0	1	/	/
4	Rear door and window cover plate	Front door and window cover plate	3.8±1.0	0.1±1.0	1	/	/
5	Rear door glass guide	Front door glass guide	3.8±1.0	0±1.0	1	/	/

Code	Part Name (benchmark)	Relevant Part Name	Specifications				
			Clearance	Tolerance	Degree of uniformity	Symptom	Alignment
6	Side wall	Rear door glass guide	6	-2.7±1.5	1.5	/	/
7	Side wall corner window	Rear door glass guide	4.5±1.0	0±1.0	/	/	/
8	Side wall corner window	Rear door corner window	5.0±1.0	1.0±1.0	1	/	/
9	Side wall corner window	Rear door outer window slot	3.5±1.0	0±1.0	1	/	/
10	Side wall	Side wall corner window	(6.0 ~ 4.0) ±1.2	/	1.2	/	/
11	Side wall	Rear doors	3.5	0±0.5	/	/	/
12	Side wall	Rear wheel brow	0.1	/	/	/	/
13	Rear wheel brow rear section	Rear wheel brow front section	3.5±1.0	0±0.8	1	/	/
14	Rear wheel brow	Rear doors	0.1	/	/	/	/
15	Rear door lower trim panel	Rear wheel brow	0(0,+0.5)	/	/	/	/
16	Rear door lower trim strip	Rear door trim panel lower	0.7±0.5	0.5	/	/	/
17	Rear door trim panel lower	Rear door outer panel	0.6	/	/	/	/
18	To the lower trim strip of the rear door	Lower trim strip of front door	4.0±1.0	/	1	/	/
19	Rear door trim panel lower	Front door trim panel lower	4.0±1.0	0±0.8	/	/	/
20	Rear doors	Front doors	4	0±0.5	/	/	/

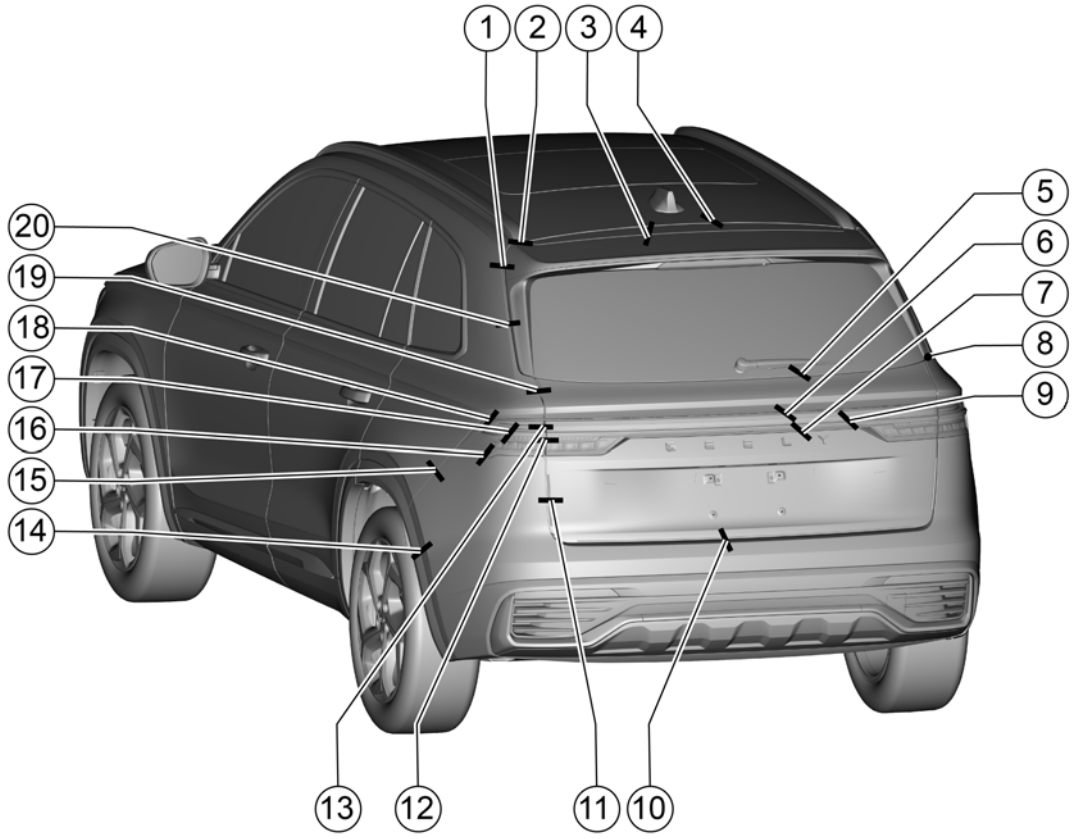
Code	Part Name (benchmark)	Relevant Part Name	Specifications				
			Clearance	Tolerance	Degree of uniformity	Symptom	Alignment
21	Front door trim panel lower	Front door outer panel	0.6	/	/	/	/
22	Lower trim strip of front door	Front door trim panel lower	0.7±0.5	/	0.5	/	/
23	Front door lower trim panel	Front wheel brow lower trim	3.5±0.8	0±0.8	/	/	/





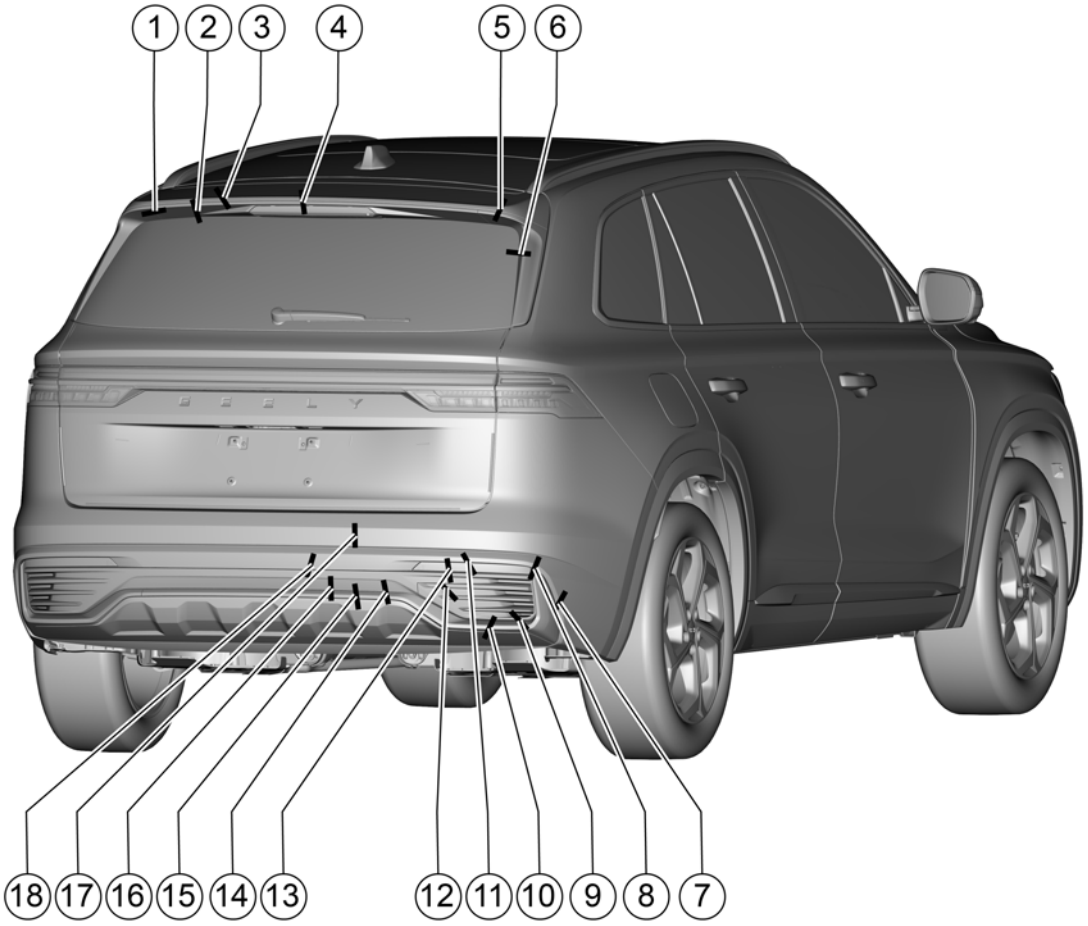


Code	Part Name (benchmark)	Relevant Part Name	Specifications				
			Clearance	Tolerance	Degree of uniformity	Symptom	Alignment
1	Front/rear door and window cover plate	Front/rear door glass guide	0.4±0.4	Styling±0.7	/	/	/
2	Rear door corner window	Rear door glass guide	0.5(-0.5,+0.7)	Styling±1.0	/	/	/
3	Front/rear door water cutting strip	Door panel	0.8±0.8	/	0.8	/	/
4	Side wall	Fuel filler cap	2.1	-0.3±0.5	/	/	/
5	Rearview mirror trim strip	Rearview mirror housing	0.3±0.3	/	/	/	/
6	Rearview mirror base	Rearview mirror lower cover plate	1.0±0.5	0±0.5	0.5	/	/
7	Rearview mirror lower cover plate	Rearview mirror base	1.0±0.5	/	0.5	/	/
8	Rearview mirror base	Front door slot seal	1.0±0.8	/	/	/	/
9	Fender	Rearview mirror base	6	2.3→3.2±1.5	/	/	/
10	Rearview mirror trim strip	Front door glass guide	0.8±0.8	/	0.8	/	/
11	Rearview mirror trim strip	Rearview mirror base	0.5±0.5	-0.5 (-0.5,0)	/	/	/
12	Rearview mirror base	Rearview mirror lower cover plate	1.2±0.5	0±0.5	/	/	/
13	Front door upper trim strip	Rearview mirror base	1.2±0.7	/	0.7	/	/
14	Rearview mirror housing	Rearview mirror cover	0.15±0.15	-0.5 (-0.5,0)	/	/	/



Code	Part Name (benchmark)	Relevant Part Name	Specifications				
			Clearance	Tolerance	Degree of uniformity	Symptom	Alignment
1	Side wall	Spoiler	4.0	Styling±1.2	1.2	/	/
2	Body on the spoiler	Luggage rack strips	Styling(>7.0) ±1.5	/	/	/	/
3	Back Door	Spoiler	1.1	-1.0±1.0	1	/	/
4	Roof	Back Door	5.5	-1.0±1.2	1.5	/	/
5	Rear windshield	Back Door	2.5±1.5	/	1.5	/	/
6	Back door to	Rear combination lamp (upper)	1.2	/	/	/	/

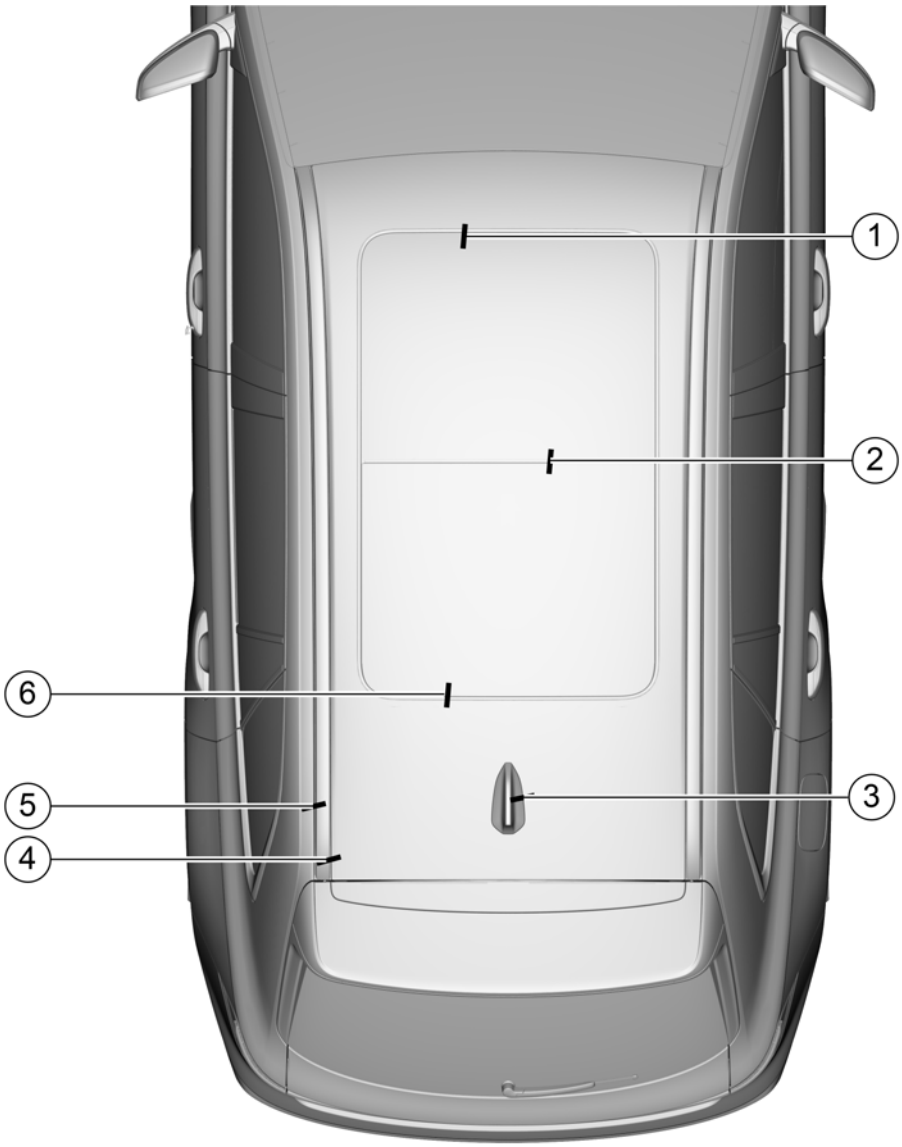
Code	Part Name (benchmark)	Relevant Part Name	Specifications				
			Clearance	Tolerance	Degree of uniformity	Symptom	Alignment
7	Back Door	Rear light cluster	1.2	/	/	/	/
8	Spoiler	Side wall	0.7	/	/	/	/
9	B lamp trim strip	Rear light cluster	0.8±0.5	/	0.5	/	/
10	Rear bumper upper body	Back Door	5.7	/	/	/	/
11	Rear bumper upper body	Back Door	4.1	-2±1.2	1.2	/	/
12	Trim strip of tail lamp A	Tail lamp trim strip	4.0±1.5	Styling±1.5	1.5	1.5	/
13	Rear right combination lamp A	Rear light cluster	4.0±1.5	-1.0±1.5	1.5	1.5	/
14	Rear wheel brow	Rear bumper	0 (0,+0.5)	/	/	/	/
15	Side wall	Rear bumper	0.1	-0.2	/	/	/
16	Rear combination lamp A	Rear bumper upper body	1.2±1.0	/	1	/	/
17	Tail lamp	Backlight trim strip	0.8±0.5	/	0.5	/	/
18	Side wall	Rear combination lamp A	1.2	/	/	/	/
19	Side wall	Back Door	4.0	-1.0±0.8	0.8	1.0	/
20	Side wall	Rear spoiler assembly	4	/	/	/	/



Code	Part Name (benchmark)	Relevant Part Name	Specifications				
			Clearance	Tolerance	Degree of uniformity	Symptom	Alignment
1	Tail gate side trim component	Lower body of the spoiler	0.5±0.5	0±0.5	0.5	/	/
2	Rear windshield	Spoiler	2.0±1.5	/	1.5	/	/
3	Body on the spoiler	Lower body of the spoiler	0.3±0.3	/	/	/	/
4	High braking lamp	Spoiler	1.0 ± 0.8 (circumfer-ence)	-0.5±0.8	0.8	/	/

Code	Part Name (benchmark)	Relevant Part Name	Specifications				
			Clearance	Tolerance	Degree of uniformity	Symptom	Alignment
5	Tail gate side trim component	Body on the spoiler	0.3±0.3	/	/	/	/
6	Rear windshield side trim component	Rear windshield	2.0±1.5	/	1.5	/	/
7	Rear bumper upper body	Rear bumper sport trim strip	1.0±0.7	/	0.7	/	/
8	Rear Fog Lamp	Rear bumper sport trim strip	1.0±0.8	/	0.8	/	/
9	Rear bumper sport trim strip	Rear bumper lower trim panel	0.7±0.5	/	0.7	/	/
10	Rear bumper sport trim strip	Rear bumper lower trim panel	0.7±0.5	/	0.7	/	/
11	Rear Fog Lamp	Rear bumper upper body	1.0±0.8	/	0.8	/	/
12	Towing hook cover plate	Rear bumper assembly	0.5 ± 0.5 (cyclic)	-0.5±0.5	/	/	/
13	Rear Fog Lamp	Rear bumper lower trim panel	1.0±0.8	/	0.8	/	/
14	Rear bumper sport trim strip	Rear bumper sport trim strip	1.0±0.7	/	0.7	/	/
15	Rear bumper sport trim strip	Rear bumper lower trim panel	0.7±0.5	/	0.7	/	/

Code	Part Name (benchmark)	Relevant Part Name	Specifications				
			Clearance	Tolerance	Degree of uniformity	Symptom	Alignment
16	Rear bumper sport trim strip	Rear bumper lower trim panel	0.7±0.5	/	0.7	/	/
17	Radar cover/ radar	Rear bumper	0.2±0.2	0±0.3	/	/	/
18	Rear bumper upper body	Rear bumper lower trim panel	0.5±0.5	/	/	/	/



Code	Part Name (benchmark)	Relevant Part Name	Specifications				
			Clearance	Tolerance	Degree of uniformity	Symptom	Alignment
1	Roof	Sunroof glass (front)	10.2±2.0	-1.0±1.5	2	/	/
2	Sunroof glass (rear)	Sunroof glass (front)	9.8±2.0	1.0±1.5	2	/	/
3	Antenna	Roof	0+0.5	/	/	/	/
4	Luggage rack strips	Roof	3.0±1.2	/	1.2	/	/
5	Luggage rack strips	Side wall	3.0±1.2	/	1.2	/	/
6	Roof	Sunroof glass (rear)	10.2±2.0	1.0±1.5	2	/	/

4.5 Body structure (plastic body parts)

4.5.1 Body Plastic Parts Repair Instructions

4.5.1.1 Instructions and Operations

At present, the materials covered on the surface of interior and exterior trims are mainly modified PP, ABS, PC+ABS, PVC (artificial leather materials), all of which are thermoplastics or their modified materials. POM, PA and HDPE materials are also used for non-surface covering parts of interior and exterior trims.

Thermosetting plastics are rarely used for interior and exterior trims, and only phenolic plastics are used for ashtrays. Thermosetting plastics are mainly used as structural parts in electronic appliances and safety components.

Thermoplastic parts should best be repaired by using hot soldering iron plastic material filling welder, but are usually repaired by replacement. To repair parts made of thermosetting plastics, epoxy resin or other harder two-component repair materials can be used. This chapter only briefly introduces their repair methods, and repairs are not recommended.

Types of plastics:

Thermosetting plastics refer to plastics that can be cured under heating or other conditions or have insoluble (infusible) characteristics, such as phenolic plastics, epoxy plastics, etc.

Thermoplastics refer to plastics that can be repeatedly heated to soften and cooled to harden within a specific temperature range, such as polyethylene, polytetrafluoroethylene, etc.

Thermoplastics and thermosetting plastics can be hard plastics or soft plastics.

4.5.1.2 Plastic Part Repair Notices

1. Apply protective cream on exposed skin to prevent skin irritation.
2. Wear rubber gloves.
3. Wear safety goggles when using compressed air and sanding.
4. Immediately remove any mixture in contact with the skin, as the mixture will cure quickly.
5. When grinding or sanding, wear a dust mask and safety goggles.
6. Wash the skin with cool water to reduce the slight irritation of the resin or dust on the skin.
7. Do not get repair materials on your clothes.
8. Use repair materials in a well-ventilated environment. The dust particles generated by the maintenance materials are toxic.
9. After use, seal all repair material containers. Dust or moisture will pollute the repair materials and reduce the repair effect.

4.5.1.3 Repair of Thermosetting Plastic Dent

1. Clean and dry the part to be repaired.
2. Use a hot air blower to heat the dent until the dent can be flattened with a suitable tool.
3. Sand the dent area with sandpaper/ emery paper.
4. Then clean the repair part with cleaner and dry in the air for 5 min.
5. Apply a thin layer of binder and dry in the air for 10 min.
6. Fill the uneven surface with adhesive and smooth it with a spatula.
7. Use infrared light to accelerate the curing process. Adjust the temperature to 60-70 ℃ (140-158 ºF), and heat it for 15 minutes.
8. Sand the dent with sandpaper.
9. Remove dust and wear debris.
10. Apply a thin layer of binder and dry in the air for 10 min.
11. Restore the paint surface according to the Plastic Surface Paint Repair Process.

4.5.1.4 Repair of Thermosetting Plastic Scratch

1. Clean and dry the part to be repaired.
2. Use sandpaper to remove the protruding material.
3. Then clean the repair part with cleaner and dry in the air for 5 min.
4. Apply a layer of binder and dry in the air for 10 min.
5. Fill the uneven surface with adhesive and smooth it with a spatula.
6. Use infrared light to accelerate the curing process. Adjust the temperature to 60- 70 ℃ (140-158 ºF), and heat it for 15 minutes.
7. Sand the dent with sandpaper.

8. Remove dust/wear debris.

9. Apply a thin layer of binder and dry in the air for 10 min.

10. Restore the paint surface according to the Plastic Surface Paint Repair Process.

4.5.1.5 Repair of Thermosetting Plastic Crack

1. Clean and dry the part to be repaired.

2. Use sandpaper to remove the protruding material.

3. Then clean the repair part with cleaner and dry in the air for 5 min.

4. Apply a layer of binder and dry in the air for 10 min.

5. Fill the uneven surface with adhesive and smooth it with a spatula.

6. Use infrared light to accelerate the curing process. Adjust the temperature to 60- 70 ℃ (140-158 ºF), and heat it for 15 minutes.

7. Sand the dent with sandpaper.

8. Remove dust/wear debris.

9. Apply a thin layer of binder and dry in the air for 10 min.

10. Restore the paint surface according to the Plastic Surface Paint Repair Process.

4.5.2 Heat-resistance temperature of plastic parts

4.5.2.1 Heat-resistance temperature of plastic parts

Part Name	Code	Material Name	Heat-resistance temperature °C
Front reading lamp body	ABS	Acrylonitrile-butadiene-styrene	100℃
Interior opening handle cover plate of left front door	PC+ABS	Polycarbonate+nitrile-butadiene-ethylene.	100℃
Left front door interior trim panel assembly	PP+EPDM-TD10	Modified polypropylene	90℃
Left front door tilt handle screw blanking cover	PC+ABS	Polycarbonate+nitrile-butadiene-ethylene.	100℃
Left front door and window frame trim assembly	PP+EPDM-TD20	Modified polypropylene	100℃
Right front door inward-opening handle cover	PP+EPDM-TD10	Modified polypropylene	90℃
FR door interior trim panel assembly	PP+EPDM-TD10	Modified polypropylene	90℃
Right front door switch panel assembly	PC+ABS	Polycarbonate+nitrile-butadiene-ethylene.	100℃
Right front door tilt handle screw blanking cover	PP+EPDM-TD20	Modified polypropylene	100℃
Right front door and window frame trim assembly	PP+EPDM-TD20	Modified polypropylene	100℃
Left rear door switch panel assembly	PC+ABS	Polycarbonate+nitrile-butadiene-ethylene.	100℃
Left rear door and window trim strip assembly	PP+EPDM-TD20	Modified polypropylene	100℃
Left rear door handle screw blanking cover	PP+EPDM-TD10	Modified polypropylene	90℃
Right rear door handle screw blanking cover	PP+EPDM-TD20	Modified polypropylene	100℃
Right rear door and window frame trim assembly	PP+EPDM-TD20	Modified polypropylene	100℃
Left A-pillar upper trim panel assembly	PP+EPDM-TD20	Modified polypropylene	100℃
Left A-pillar upper trim panel	PP+EPDM-TD20	Modified polypropylene	100℃
Right A-pillar upper trim panel assembly	PP+EPDM-TD20	Modified polypropylene	100℃

Part Name	Code	Material Name	Heat-resistance temperature °C
Right A-pillar upper trim panel	PP+EPDM-TD20	Modified polypropylene	100℃
Right B-pillar lower trim panel assembly	PP+PET	PP PET composite material	100℃
Left B-pillar lower trim panel assembly	PP+PET	PP PET composite material	100℃
Right C-pillar upper trim panel assembly	PP+EPDM-TD20	Modified polypropylene	100℃
Left C-pillar upper trim panel assembly	PP+EPDM-TD20	Modified polypropylene	100℃
Left D-pillar upper trim panel assembly	PP+EPDM-TD20	Modified polypropylene	100℃
Right D-pillar mounting bracket	PP-GF30	Glass reinforced polypropylene	140℃
Left D pillar mounting bracket	PP-GF30	Glass reinforced polypropylene	140℃
Right D-pillar upper trim panel assembly	PP+EPDM-TD20	Modified polypropylene	100℃
Left front door sill trim panel assembly	PP-TD10 - PP-H1302	Diesel powder reinforced polypropylene	100℃
Right front door sill trim panel assembly	PP-TD10 - PP-H1302	Diesel powder reinforced polypropylene	100℃
Right rear door sill interior trim panel assembly	PP+PET	PP PET composite material	100℃
Right rear door sill interior trim panel assembly	PP-TD10 - PP-H1302	Diesel powder reinforced polypropylene	100℃
Left rear door sill interior trim panel assembly	PP+PET	PP PET composite material	100℃
Left rear door sill interior trim panel assembly	PP-TD10 - PP-H1302	Diesel powder reinforced polypropylene	100℃
Right upper interior trim panel assembly of the backdoor	PP-TD10 - PP-H1302	Diesel powder reinforced polypropylene	100℃
Right upper interior trim panel assembly of the backdoor	PP+EPDM-TD20	Modified polypropylene	100℃
Interior trim panel assembly of middle and upper side of backdoor	PP+EPDM-TD20	Modified polypropylene	100℃

Part Name	Code	Material Name	Heat-resistance temperature °C
Upper trim panel cover of left luggage compartment	PP-TD10 - API-1025	Diesel powder reinforced polypropylene	100℃
Upper trim panel cover of left luggage compartment	PP+EPDM-TD10	Modified polypropylene	90℃
Right luggage compartment upper trim cover	PP-TD10 - API-1025	Diesel powder reinforced polypropylene	100℃
Right luggage compartment upper trim cover	PP+EPDM-TD10	Modified polypropylene	90℃
Lower interior trim panel assembly of the backdoor	PP-TD10 - PP-H1302	Diesel powder reinforced polypropylene	100℃
Right luggage compartment side fender apron assembly	PP+PET	PP PET composite material	100℃
Right luggage compartment trim panel buckle seat	PP-TD10 - API-1025	Diesel powder reinforced polypropylene	100℃
Right lower trim panel of the luggage compartment	PP-TD10 - PP-H1302	Diesel powder reinforced polypropylene	100℃
Right rear taillight access cover	PP-TD10	Diesel powder reinforced polypropylene	100℃
Right seat backrest buckle sheath	PP-TD10 - PP-H1302	Diesel powder reinforced polypropylene	100℃
Right luggage compartment side fender apron assembly	PP-TD10 - API-1025	Diesel powder reinforced polypropylene	100℃
Luggage compartment hook blanking cover	PP+EPDM-TD10	Modified polypropylene	90℃
Left luggage compartment side fender apron assembly	PP+PET	PP PET composite material	100℃
Left luggage compartment trim panel buckle seat	PP-TD10	Diesel powder reinforced polypropylene	100℃
Left lower trim panel of the luggage compartment	PP-TD10 - PP-H1302	Diesel powder reinforced polypropylene	100℃
Rear wall left clapboard	PP-TD10 - PP-H1302	Diesel powder reinforced polypropylene	100℃
Left seat backrest buckle sheath	PP-TD10	Diesel powder reinforced polypropylene	100℃
Left luggage compartment side fender apron assembly	PP-TD10	Diesel powder reinforced polypropylene	100℃
Rear left taillight access cover	PP-TD10	Diesel powder reinforced polypropylene	100℃

Part Name	Code	Material Name	Heat-resistance temperature °C
Left lower trim panel of the luggage compartment	PP-TD10	Diesel powder reinforced polypropylene	100℃
Rear wall left clapboard	PP-TD10	Diesel powder reinforced polypropylene	100℃
Left C-pillar lower trim panel cover	PP-TD10	Diesel powder reinforced polypropylene	100℃
Right C-pillar lower trim panel cover	PP-TD10	Diesel powder reinforced polypropylene	100℃
Left trim panel of vent cover plate	PP+PET	PP PET composite material	100℃
Left trim panel of vent cover plate	PP-TD10	Diesel powder reinforced polypropylene	100℃
Rear wall sound insulating pad LH	PP+PET	PP PET composite material	100℃
Right trim panel of vent cover plate	PP+PET	PP PET composite material	100℃
Right trim panel of vent cover plate	PP-TD10	Diesel powder reinforced polypropylene	100℃
Rear wall sound insulating pad RH	PP+PET	PP PET composite material	100℃
Celling pad	PE-HD	High density polyethylene	60℃
Circuit insulation pad	PU	Polyurethane	100℃
Central loudspeaker cover plate	PC+ABS	Polycarbonate+nitrile-butadiene-ethylene.	100℃
Dashboard body	PP-LGF20	Long glass reinforced polypropylene	110℃
Defrosting air duct	PP-TD20	Diesel powder reinforced polypropylene	105℃
HUD cover	PC+ABS	Polycarbonate+nitrile-butadiene-ethylene.	100℃
Instrument cluster cap PCV assembly	PC+ABS	Polycarbonate+nitrile-butadiene-ethylene.	100℃
Right covered trim panel body	PC+ABS	Polycarbonate+nitrile-butadiene-ethylene.	100℃
Left lower baffle assembly	PP+EPDM-TD20	Modified polypropylene	100℃
Left lower baffle	PP+EPDM-TD20	Modified polypropylene	100℃
Left air outlet panel assembly	PC+ABS	Polycarbonate+nitrile-butadiene-ethylene.	100℃

Part Name	Code	Material Name	Heat-resistance temperature °C
Glove box body frame assembly	PP+EPDM-TD20	Modified polypropylene	100℃
Glove box cover plate outer	PP+EPDM-TD20	Modified polypropylene	100℃
Glove box frame	PP+EPDM-TD20	Modified polypropylene	100℃
Left lower guard assembly of dashboard	PP+EPDM-TD20	Modified polypropylene	100℃
frame assembly of auxiliary dashboard	PP+EPDM-TD20	Modified polypropylene	100℃
Auxiliary dashboard frame	PP+EPDM-TD10	Modified polypropylene	90℃
Right outer handle assembly of auxiliary dashboard	PC+ABS	Polycarbonate+nitrile-butadiene-ethylene.	100℃
The right outer handle of the auxiliary dashboard is covered with the body	PC+ABS	Polycarbonate+nitrile-butadiene-ethylene.	100℃
Right trim panel body auxiliary dashboard	PP+EPDM-TD10	Modified polypropylene	90℃
Air conditioning side fastening bracket of auxiliary dashboard	PP-TD20	Diesel powder reinforced polypropylene	105℃
Console moulding assembly	PC+ABS	Polycarbonate+nitrile-butadiene-ethylene.	100℃
Shifter panel assembly	PC+ABS	Polycarbonate+nitrile-butadiene-ethylene.	100℃
Shifter panel	PC+ABS	Polycarbonate+nitrile-butadiene-ethylene.	100℃
Front auxiliary box of auxiliary dashboard	PP-TD20	Diesel powder reinforced polypropylene	105℃
Rear vent assembly of auxiliary dashboard	PP-GF20	Glass reinforced polypropylene	90℃
the rear panel assembly of the console	PP+EPDM-TD20	Modified polypropylene	100℃
Rear auxiliary box of auxiliary dashboard	PP-TD20	Diesel powder reinforced polypropylene	105℃
Rear panel of auxiliary dashboard	PP+EPDM-TD20	Modified polypropylene	100℃
Inner temperature sensor bracket	PP	Polypropylene	85℃
Height distribution of left rear side wall combination lamp	PC+ABS	Polycarbonate+nitrile-butadiene-ethylene.	100℃

Part Name	Code	Material Name	Heat-resistance temperature °C
Rear left combination lamp B trim panel	ABS	Acrylonitrile-butadiene-styrene	100℃
Rear bumper left auxiliary lamp	PC+ABS	Polycarbonate+nitrile-butadiene-ethylene.	100℃
Rear bumper right auxiliary lamp	PC+ABS	Polycarbonate+nitrile-butadiene-ethylene.	100℃
High distribution of right rear side wall combination lamp	PC+ABS	Polycarbonate+nitrile-butadiene-ethylene.	100℃
Height distribution of through-type back door combination lamp	PC+ABS	Polycarbonate+nitrile-butadiene-ethylene.	100℃
Left combination rear lamp A trim panel	ABS	Acrylonitrile-butadiene-styrene	100℃
Rear right lamp A trim panel	ABS	Acrylonitrile-butadiene-styrene	100℃
Rear right combination lamp B trim panel	ABS	Acrylonitrile-butadiene-styrene	100℃
Left front door exterior trim corner	ABS - ABS233	ABS material	85℃
Right front door exterior trim corner	ABS - ABS233	ABS material	85℃
Left front door B-pillar trim panel	ABS, PMMA	Acrylic nitrile-butadiene-ethylene, PMMA	95℃
Right front door B-pillar trim panel	ABS, PMMA	Acrylic nitrile-butadiene-ethylene, PMMA	95℃
Left rear door B-pillar trim panel	ABS, PMMA	Acrylic nitrile-butadiene-ethylene, PMMA	95℃
Right rear door B-pillar trim panel	ABS, PMMA	Acrylic nitrile-butadiene-ethylene, PMMA	95℃
Backdoor lock body sheath	PP+EPDM	Modified polypropylene	65℃
Right front wheel fender flare trim panel	PP	Polypropylene	85℃
RR fender flare II	PP	Polypropylene	85℃
RL fender flare II	PP+EPDM-TD20	Modified polypropylene	100℃
Left rear door lower trim panel assembly	ABS,PP+EPDM-TD20	Modified polypropylene	95℃
Right rear door lower trim panel assembly	ABS,PP+EPDM-TD20	Modified polypropylene	95℃

Part Name	Code	Material Name	Heat-resistance temperature °C
Left front door lower trim panel assembly	ABS,PP+EPDM-TD20	Modified polypropylene	95℃
FR door lower trim panel assembly	ABS,PP+EPDM-TD20	Modified polypropylene	95℃
Shark fin trim cover assembly	PC+ABS	Polycarbonate+nitrile-butadiene-ethylene.	100℃
Front bumper lower grille	PP+TD20 - 1304C	Diesel powder reinforced polypropylene	105℃
Pedestrian calf protection bracket	PP+EPDM-TD20	Modified polypropylene	100℃
Trim cover front fog lamp RH	PP+EPDM-TD20	Modified polypropylene	100℃
Front bumper moulding	PP+EPDM-TD20	Modified polypropylene	100℃
Rear bumper moulding upper	PP+EPDM-TD20	Modified polypropylene	100℃
Body on the spoiler	PC+ABS	Polycarbonate+nitrile-butadiene-ethylene.	100℃
Spoiler lower plate	PC+ABS	Polycarbonate+nitrile-butadiene-ethylene.	100℃
Spoiler assembly	PC+ABS	Polycarbonate+nitrile-butadiene-ethylene.	100℃
Spoiler lower plate	PC+ABS	Polycarbonate+nitrile-butadiene-ethylene.	100℃
Front door control unit housing	PP-GF30	Glass reinforced polypropylene	140℃
Rear door control unit housing	PP-GF30	Glass reinforced polypropylene	140℃
Vent cover plate	PP+EPDM-TD20	Modified polypropylene	100℃
Left front wheel housing fender assembly	PP+EPDM-TD20	Modified polypropylene	100℃
Left front wheel windshield	PP+EPDM-TD20	Modified polypropylene	100℃
Front splash guard front wheel arch LH	PP+EPDM-TD20	Modified polypropylene	100℃
Right front wheel housing fender assembly	PP+EPDM-TD20	Modified polypropylene	100℃
Right front wheel wind deflector	PP+EPDM-TD20	Modified polypropylene	100℃
Front splash guard front wheel arch RH	PP+EPDM-TD20	Modified polypropylene	100℃

Part Name	Code	Material Name	Heat-resistance temperature °C
Right rear wheel wind deflector	PP+EPDM-TD20	Modified polypropylene	100℃
Left rear wheel wind deflector	PP+EPDM-TD20	Modified polypropylene	100℃

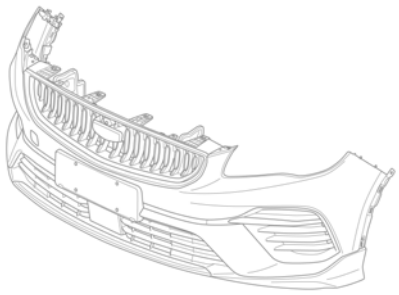
Caution

Using the parts at a temperatures higher than the heat-resistant temperature will cause deformation of the parts.

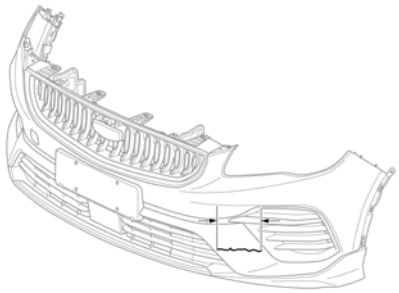
4.5.3 Repair of polypropylene bumpers

4.5.3.1 Repairable bumpers

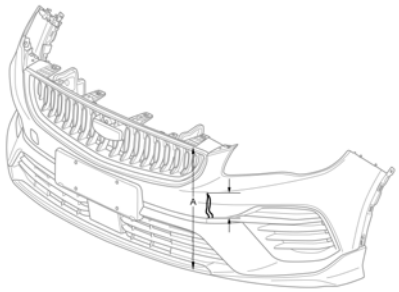
The three types of damaged bumpers shown below are considered repairable. Although bumpers with more serious damage can be repaired, they should be replaced with new ones, because the appearance and quality have been affected. In addition, from the perspective of working hours, such repair is also inappropriate.



1. Bumpers with holes smaller than 50mm (1.97in) in diameter.



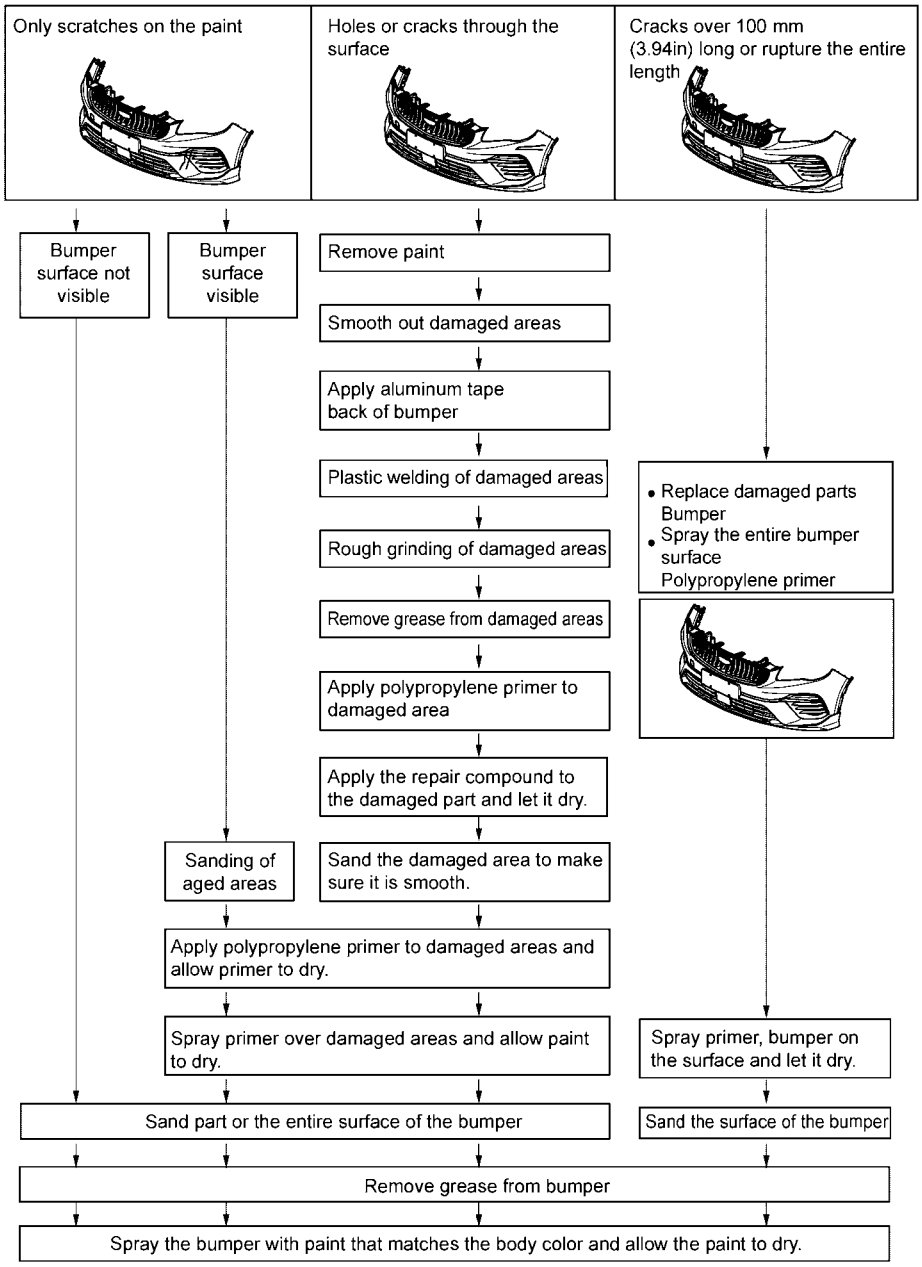
2. Bumper with crack length shorter than 100mm (3.94in).



3. A bumper with a crack length shorter than 100mm (3.94in) and shorter than half the width of the bumper.

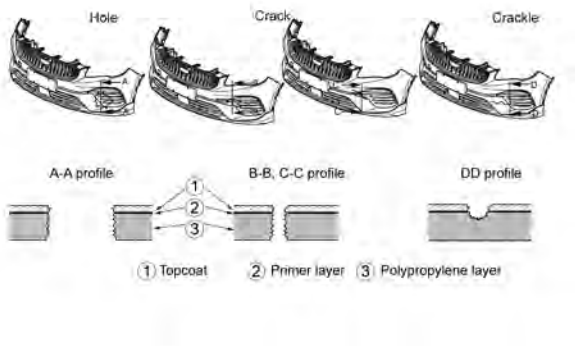
4.5.4 Repair of polypropylene bumpers

4.5.4.1 Repair of polypropylene bumpers

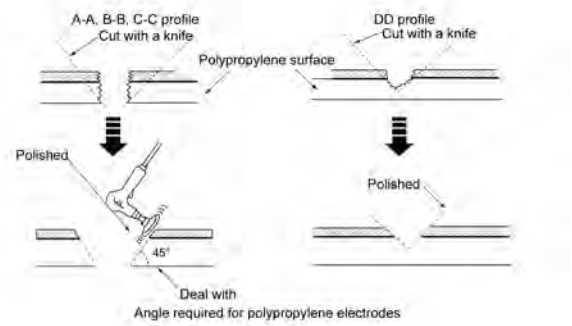


4.5.5 Procedures

4.5.5.1 Procedures

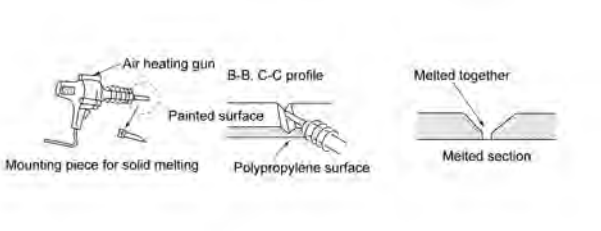


1. Use a knife to cut off the burrs around the damaged area to make it smooth. Use a sander to polish the area, in order to form an angle of approximately 45°.

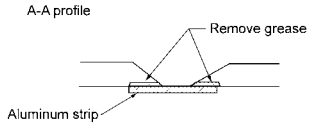


2. Weld the damaged areas.

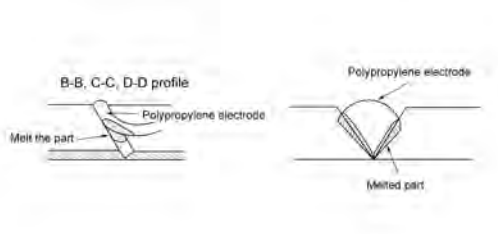
For the repair of a crack, use a heat gun and melt to fuse the crack together.



For the repair of a hole, remove the grease on both sides of the bumper and apply aluminum tape on the reverse side of the damaged area.



3. Use a heat gun to melt the polypropylene welding rod and fill the crack.



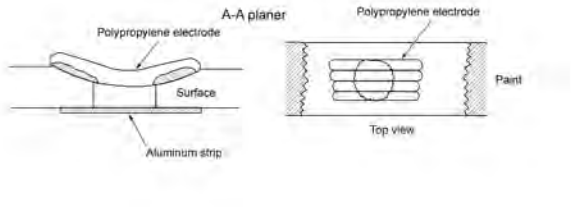
Caution

Heat the shaded area to melt it.

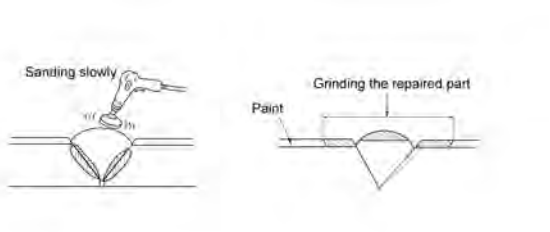
Be careful not to melt the welding rod excessively. If the part is welded with an welding rod that is melted into gel, the weld strength will be reduced.

Keep the air heating gun 10-20 mm (0.39-0.79 in) away from the welded parts.

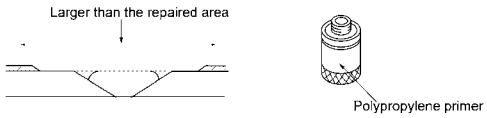
The welding rod can be removed only after the welded parts have cooled down.


A-A planer
Polypropylene electrode
Surface
Aluminum strip
Polypropylene electrode
Paint
Top view

4. Gradually polish the surface of the polypropylene, because the heat generated by friction is likely to melt it. Sand the area where the repairing additive will be applied.



5. Apply the polypropylene primer evenly with a brush, and the primer spread should be larger than the area being repaired. Allow it to dry at 20°C (68°F) for 10 minutes.



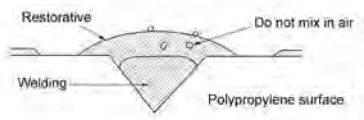
6. Mix the main agent and hardener in a one-to-one ratio. Apply the mixed repairing additive to the damaged positions.

Caution

a. When mixing the main agent and hardener, be careful not to form bubbles.

b. The repairing additive hardens quickly (about 5 minutes); the repairing additive should be used immediately after mixing.

c. Before sanding, let it dry for 30 minutes at 20°C (68°F).



The repairing additive is a two-component epoxy adhesive.

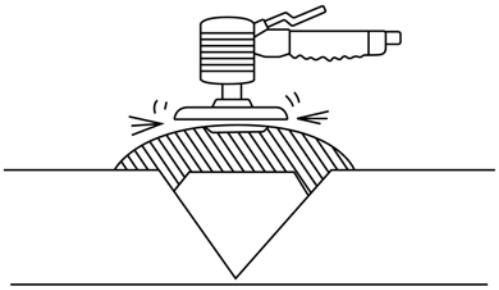
When the repairing additive hardens, it has a good effect and has the same flexibility as polypropylene.

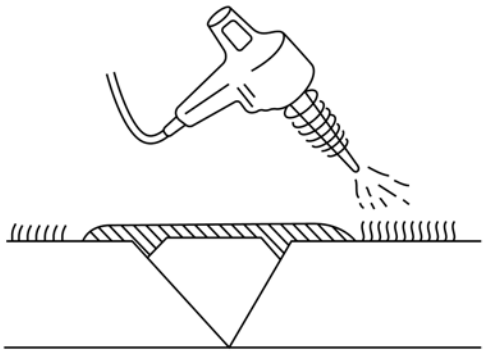
7. Sand the area with #180-240 sandpaper.

Caution

a. If too much force is applied to the area during sanding, the surface of the bumper will be damaged.

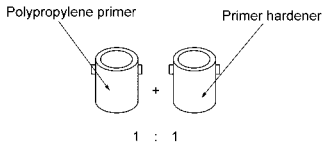
b. If there are burrs around the area being repaired, use a heat gun to melt it.





8. Remove the grease on the painted surface.

9. Mix primer and hardener in a one-to-one ratio. Use a brush or spray gun to apply primer on the area being repaired and the bumper surface.



Use the primer within 16 hours after mixing.

Caution

If wiped with a solvent, the polypropylene primer will melt even after it dries. Only use water to clean around the primer.

10. Allow the part to dry.